

Co-ordination of Enterprise Skill Formation: A Sociological and Historical Narrative of Professional, Market and State Initiatives in South Africa

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Declaration

I declare that *Co-ordination of Enterprise Skill Formation: A Sociological and Historical Narrative of Professional, Market and State Initiatives in South Africa* is my own work, that it has not been presented in whole or part for examination for any degree and that all the sources used or quoted have been identified and acknowledged by complete references.

Signed by candidate

6 December 2017

Dedication

This thesis is dedicated to the memory of two special people:

Rachel Lundall (nee Baddis), my mother;

And

Charlton Delano Koen, my friend.

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Studying for a PhD is usually quite auspicious, if not serendipitous. Once started it is a journey which has unintended consequences. It gives rise to high degrees of altruism and reciprocity from individuals and networks which do not always seem apparent. This is a modest acknowledgement and expression of my thanks to all the individuals who have made this process possible.

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In the course of writing this thesis, I also undertook work for the South African Clothing and Textile Workers Union (SACTWU), covering the period when the NSDS III was starting to commence.

Stemming from this initial work for SACTWU, the union also nominated me to serve as an alternate board member to the Clothing, Textile, Footwear and Leather Textile (CTFL) SETA. SACTWU's involvement as a union in the wholesale and retail sector also led me to participate as the SACTWU representative on the board of the Wholesale and Retail (W&R) SETA for an interim period until new regulations for the size of SETA boards were introduced by the Department of Higher Education and Training in 2011. The opportunity nonetheless gave me insight into the functioning of SETAs. This knowledge was used to frame my discussion of the skills levy system and the changes in the allocation mechanism of funding. I am extremely grateful to Andre Kriel and SACTWU for affording me the opportunity to examine SETAs more closely.

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Acronyms and Abbreviations

6M	Men, Machines, Materials, Money, Management and Market
AATP	Accelerated Artisan Training Programme
ABE	Adult Basic Education
ALMP	Active Labour Market Policy
ANC	African National Congress
APPETD	Association of Private Providers of Education Training and Development
ASSOCOM	Association of Chambers of Commerce of South Africa
ATBs	Accredited Training Boards
ATR	Annual Training Report
ATRAMI	Artisan Training Recognition Agreement of the Metal Industries
ATS	Aptitude Test Section
BUSA	Business Unity South Africa
CACE	Centre for Adult and Continuing Education (UWC)
CASE	Community Agency for Social Enquiry
CEG	Commonwealth Expert Group
CHET	Centre for Higher Education Transformation
CMFA	Cape Manufacturers and Founders Association
COSATU	Congress of South African Trade Unions
COTT	Central Organisation for Trade Testing
CRIC	Community Resources and Information Centre
CSIR	Council for Scientific and Industrial Research
CTFL	Clothing, Textiles, Footwear and Leather (SETA)
DHET	Department of Higher Education and Training
DoL	Department of Labour
DPRU	Development Policy Research Unit (UCT)
EPUs	Education Policy Units
ERC	Economic Restructuring Council (Kraak)
ETQA	Education and Training Quality Assurer
FET	Further Education and Training
HAP	Human Awareness Programme
HSRC	Human Sciences Research Council
ICT	Information and Communication Technology
IIE	Institute of Industrial Education
ISCOR	Iron and Steel Corporation (of South Africa, a state owned enterprise)
ITB	Industrial Training Board
LEP	Labour and Enterprise Research Group
LCI	Learning Cape Initiative
LIRI	Leather Industries Research Institute
MCCT	Marx's Capital and Capitalism Today
MEDU	Macro-Economic Development Unit
MERSETA	Manufacturing, Engineering and Related Services Education and Training Authority
MICTSETA	Media, Information and Communication Technologies Sector Education and Training Authority
MTA	Manpower Training Act

MTT	Ministerial Task Team
NAB	National Apprenticeship Board
NACTU	National Council of Trade Unions
NAMB	National Artisan Moderating Body
NBESR	National Bureau of Educational and Social Research
NBPR	National Bureau for Personnel Research
NCSR	National Council for Social Research
NDFSA	National Development Foundation of South Africa
NDMF	National Development and Management Foundation of South Africa
NECC	National Education Coordinating Committee
NEDLAC	National Economic Development and Labour Council
NEET	Not in Employment, Education or Training
NEPI	National Education Policy Investigation
NGO	Non-Government Organisation
NIESR	National Institute for Economic and Social Research (London)
NIIP	National Institute of Industrial Psychology (UK)
NIPR	National Institute for Personnel Research
NMC	National Manpower Commission
North	University of the North
NP	Nationalist Party
NPO	Non-Profit Organisation
NQF	National Qualifications Framework
NSA	National Skills Authority
NSDS	National Skills Development Strategy
NSF	National Skills Fund
NSFAS	National Student Financial Aid Scheme
NSS	National Skills Survey (HSRC)
NTB	National Training Board
NUMSA	National Union of Metalworkers of South Africa
OECD	Organisation for Economic Co-operation and Development
PES	Productive, Expandable, Social (Francis Green's model of the components to skill)
PIRSA	Psychology Institute of the Republic of South Africa
PIVOTAL	Professional, Vocational, Technical and Academic Learning
PPBS	Planning, Programming and Budgeting System
QCTO	Quality Council for Trades and Occupations
QAP	Quality Assurance Partners
REPPESA	
RESA	Research on Education in South Africa
RIVET	Research Institute for Vocational Education and Training (Bennell)
RPL	Recognition of Prior Learning
RSA	Republic of South Africa
SACHED	South African Committee for Higher Education
SACTWU	South African Clothing and Textile Workers Union
SAIRR	South African Institute of Race Relations
SALDRU	Southern African Labour and Development Research Unit
SAPA	South African Psychological Association
SAQA	South African Qualifications Authority
SARS	South African Revenue Services
SBTC	Skill-Biased Technical Change

SDA	Skills Development Act
SDF	Skills Development Facilitator
SEIFSA	Steel and Engineering Industries Federation of South Africa
SETA	Sector Education and Training Authority
SETO	Sector Education Training Organisation
SIRSA	Sielkundige Instituut van die Republiek van Suid Afrika
SLA	Skills Levies Act (formally known as the Skills Development Levies Act)
SSP	Sector Skills Plan
TNC	Trans National Corporation (Corporate)
TUACC	Trade Union Advisory Coordinating Council
TVET	Technical Vocational, Education and Training
UCT	University of Cape Town
UDF	United Democratic Front
UDW	University of Durban Westville
UG	Union Government
UK	United Kingdom
UND	University of Natal, Durban
UniBo	University of Bophuthatswana
UNISA	University of South Africa
US/USA	United States of America
UTP	Urban Training Project
UWC	University of the Western Cape
VAT	Value Added Tax
VET	Vocational Education and Training
VOC	Varieties of Capitalism
WC1	First Report of the Wiehahn Commission into Labour Legislation
WC2	Second Report of the Wiehahn Commission into Labour Legislation
Wits	University of the Witwatersrand
W&R SETA	Wholesale and Retail SETA
WSP	Workplace Skills Plan

Abstract

This thesis analyses the sociological and historical genesis of enterprise skill formation in South Africa and its effective coordination. South Africa's late nineteenth century development as an emerging economy contributed to the state often taking the lead and being at the forefront of efforts to ensure coordination in enterprise skill formation. But gradually, concerns shaped by issues related to labour supply motivated leaders in firms and enterprises to forge their own imprint on the coordination of enterprise skill formation. The thesis also shows how these concerns with the coordination of enterprise skill formation involved intellectuals and professionals who attempted to intervene on these matters.

The thesis proceeds to elaborate the unique institutional architecture which was constructed at various junctures in the history of South Africa's human resource and skill formation journey. Furthermore the thesis gives an insight into the coordination of enterprise skill formation which occurred in the period of apartheid induced reforms. The evidence however shows that even when regimes change and new political orders are established, it does not end the necessity for continuity in the coordination of enterprise skill formation. As is to be expected, the institutional, regulatory and instrumental content of the coordination of enterprise skill formation is more complex in the contemporary period (circa. 2017) than it was in the 1920s and 1930s. However, the goal striven toward then was for a more streamlined process which could contribute to a change and improvement in the existing practice of enterprise skill formation. Evidence shows that this has been ongoing for over a century.

The thesis gives an intricate and detailed insight into the process of building a new coordinated skills development system that was intended to ensure the coordination of enterprise skill formation under a democratic post-apartheid political dispensation. In this period a levy-grant system underwritten by a national skills levy has been a central instrument of direct coordination into enterprise skill formation. The analysis that is provided traces the iterative steps that were treaded by policy makers and policy thinkers from at least the early 1920s as they confronted what may have appeared as an elusive enterprise skill

formation process. This analysis is done with a great deal more depth for the period since the early 1990s.

Chapter 1 Introduction to the Coordination of Enterprise Skill Formation in South Africa

1.1 Setting the Scene

Insights which we are able to glean from recent research literature on the character of the South African skill formation system, particularly, as it relates to the generation and supply of skills at the firm or enterprise level to which the entire system owes its content and substance allows for a set of uncontentious propositions about what this system is (see in particular McGrath, 2004 & Kraak, 2004a). A wide spectrum of comparative international literature is typically invoked to contextualise the South African system in relation to comparative skill formation systems. It is meant to simplify the characterisation of the South African skill formation system and its supporting institutions. It is meant to make the choice about how one actually defines the South African skill formation system easier to arrive at.

The legacy of the differentiated skill formation and training system that has evolved in South Africa often complicates analysis because it sets the precondition for having to explain the different phases in the application of racial policies underwritten by the state which was applied to the overall system. Furthermore, in depicting the South African skill formation system, even at a general level, it has been necessary in the literature to account for the differential access and participation which different groups of the South African population experienced. In relation to the acquisition of skills and training at the level of firms and enterprises in the country, this depiction is obligatory. It also typically requires contextualising the historical process to this condition. Thus, while the exclusionary racial policies that were transmitted from the segregationist period (prior to 1948) of the country's history, complicates matters even further, the overall system for the provision of workplace skills and especially the generation of the supply of skill through the coordinating activity of the enterprise has typically been characterised as a low-skilled regime (Kraak, 2004a; including the remaining papers in McGrath, Badooien, Kraak & Unwin (Eds.) (2004).

A number of features are associated with the low-skilled regime which characterised the period under apartheid. It typically lacked national coordination. Its vocational qualification

structure was fragmented. It was served by a multiplicity of educational and training departments. Its certification and qualifications systems appeared chaotic. As the reform process evolved under apartheid, market triumphalism in the training dispensation had started becoming entrenched (Kraak, 2004a). The overall system entrenched the production of low skills. Employers tended to be short-sighted and voluntarist in their training and skill enhancing interventions at the enterprise level (these points are all drawn from Kraak, 2004a)

Implicit in the argument – when it is combined with evidence from the structure of skill formation systems in the advanced economies (e.g. Thelen, 2004) – is an imputed distinction between liberal market economies (United States and Britain) and coordinated market economies (Germany and Japan) which is seen to influence how the South African skill formation system is defined. Despite the divisive racial labour market policies that prevailed in South Africa, the comparison which is usually invoked between liberal and coordinated market economies is so compelling that the South African skill production system in the late apartheid period can quite accurately be classified as exhibiting a liberal market training and skill formation dispensation. But while the characterisation of South Africa having a low-skilled training dispensation is advanced, there is a lot of reticence in this literature about making the further logically consistent argument that the South African training dispensation is a liberal market training dispensation.

Supposing, one was to advance such an argument about the apartheid training dispensation being a liberal market dispensation, it will be logical also to extend the characterisation of the system as being liberal to an even earlier period and before apartheid. The distinction in terms of the skill formation and training dispensation at the enterprise level between the apartheid and segregationist training dispensation would not be that significant. Both phases exhibit the South African form of a liberal training and skill formation dispensation. As for the apartheid phase which is documented in the monograph on *Shifting Understandings of Skills*, indicates, enterprise skill formation interventions during the segregationist period can also be characterised as exhibiting a high level of voluntarism. In fact, attempts by the state to intervene and introduce a semblance of training coordination can be seen to have been tried from quite an early period. This was done through statutory interventions to organise and systematise enterprise training.

Although this was applied to a relatively narrow band of artisan and semi-skilled occupations, there was an effort from the state to introduce mechanisms to coordinate training and the formation of skill in South Africa especially at the enterprise level. This process ensued from at least the early 1920s. The state in South Africa but mainly through the Department of Labour attempted to devise and create institutional mechanisms which would enable and coordinate the process in which a regular flow of skilled personnel were trained to occupy mainly artisanal and semi-skilled occupations.

In examining the evidence of this phenomenon historically, one is struck by the level of consistency at which the state intervened to ensure that training of new incumbents within these designated occupational trade groupings was indeed successful. Enterprises certainly did engage and participate in these coordinating structures and bodies which were established to support the recruitment, training and expansion of new personnel into these craft and semi-skilled occupations. In addition to these options that the state made possible through its interventions, enterprises also resorted to making use of their own internally controlled methods to train and enhance the productivity of the labour force. Through the process a requisite supply of skilled labour was created.

As much as enterprises were open to making use of the state to mitigate challenges that were faced in generating a consistent supply of skilled labour, enterprises as a whole were also open to the idea of drawing on outside expertise through which to improve specific components of the overall system. Seldom however was it possible for these firms and enterprises – which typically operated under the constraints of small enterprise size in the South Africa market – to incorporate such expertise into the routine functioning of the business as a distinct occupational layer. The state had a greater concentration of resources at its disposal for this to occur. Subsequently, industrial management expertise was accommodated into state research bodies and this ensured that such expertise was available for use within and by firms in the private and public sectors. This was undertaken as an initiative designed to support high level technical needs and provide specific skill requirements to enterprises.

1.2 Similarities and Differences

Although, the literature which concentrates on the rebuilding of new institutions which form part of the overall skill formation system in South Africa under the democratic political dispensation, gives less attention to similar initiatives which occurred in the past, there are indeed strong similarities between past and present. The attempt by the state in both the segregationist and apartheid periods to improve the coordination of interventions either through policy or through the introduction of new institutional vehicles and instruments to enhance and strengthen the production of enterprise skill did not end with apartheid. It continued beyond this point and was promoted by intellectuals and policy makers who were intent on reversing the characteristics of a low skilled training dispensation which was in place with the ending of apartheid and the onset of democracy in 1994.

The new democratic state in South Africa also constructed a new but different skill formation agenda for a system which began to be constructed with legislation and subsequently the inauguration and formation of new institutions. Context setting legislation culminated in the South African Qualifications Authority (SAQA) Act of 1995 which had the aim of creating a unified system of education and training qualifications in the country. It was supported by the creation of new institutions designed to buttress the emerging system (DoL, 2001a). The crux of this outer core was a framework for new qualifications and its accreditation. These context setting measures were extremely important and significant in constituting an outer core. The inner core of the skills formation system in South Africa started being assembled in 1998 with the passage of the Skills Development Act of 1998. It was followed immediately thereafter by the Skills Development Levies Act of 1999. These legislative instruments set into motion the process of the design, construction and financing of new institutions responsible for spearheading the acceleration in the formation of workplace skills in a democratic South Africa.

The inner core of institutions to skill formation in South Africa which the Skills Development Act and the Skills Levies Act set into motion is a generalised form of workplace training in South Africa. It is financed through training levies borne by enterprises and managed by multi-stakeholder institutions known as Sector Education and Training Authorities (SETAs) (Macun, 2001). The entire inner core to the skill formation system in South Africa is underpinned by the understanding that the purpose of the exercise is to develop a single

integrated education and training system. The state through the government department responsible for ensuring that skill formation is indeed underway (i.e. the Department of Higher Education and Training) as well as through ancillary institutions which collect revenue (e.g. the South African Revenue Services), directs resources (SETAs and the National Skills Fund) is supported by accompanying institutions that ensure that the learning, testing and accreditation process to skills formation operates effectively. These accreditation institutions include SAQA and the quality councils. In the realm of enterprise skill formation the principal quality council is the Quality Council for Trades and Occupations (QCTO). Since artisans are an important segment of the skill formation chain, the testing and quality assurance of artisans is undertaken by the National Artisan Moderation Body (NAMB). The recently introduced Quality Assurance Partners (QAPs) which have replaced the SETA ETQAs are additional institutional mechanisms that are in place to support the coordination of skill formation in South Africa. All these institutions, separately but ultimately collectively intervene particularly on enterprise skill formation which is the object of enquiry to this thesis (Also see Hammond (2006) for the most recent provisions of institutional configuration which the legislation allows).

The earlier period in South Africa was of course set in a context of more racially exclusive policies. Shortly after the Union of South Africa was constituted in 1910, state administrators and policy makers were already discussing the importance of creating a more coherent and coordinated vocational training system. As the evidence in commissions of enquiry show, these state representatives and advisors wanted to see a semblance of order and coherence become established within a vocational training system which was still quite rudimentary. In terms of its systemic constitution, it was therefore still at an infant level. It is the embodiment of the ideas, thinking and proposals which emanated from these state officials and advisors to improve and enhance the system to the formation of enterprise skills that will be scrutinised more carefully in this thesis.

Despite it appearing that their attention and focus was mainly on the apprenticeship system as the principal form through which enterprise training was undertaken, the institutional architecture which these state officials and advisors proposed and put into place was important and significant. It was important because it imposed obligations and constraints on enterprises and the industries in which they were located to adjust and respond – however small – to the training of artisans and other categories of workers. It is historically

significant, because it was an initiative driven by the state through specific government departments (but principally the Department of Labour) and other bodies of authority. Although driven by state policy, this authority also made provision through the Industrial Conciliation Act for the representatives of employers and white trade unions to bilaterally exercise this authority on an industry specific basis. This was the state of affairs in terms of enterprise regulation to skill formation throughout the segregationist years of the 1920s, 1930s and 1940s in South Africa.

Of course this begs the question about the corresponding response of other stakeholders inside and outside the enterprise. Inside the enterprise were of course the contending forces and interests of employer and workers and the associations which each respectively belonged. Outside the enterprise was a wide spectrum of new scientific knowledge and expertise, which scientific management had awakened. This new scientific expertise was mobilised to guide and give support to component elements of the wider skill formation challenge. It potentially represented a source of assistance to the wider coordination of skills formation in general. This wider knowledge ranged from cost accounting, industrial social work and personnel management. This knowledge which covered the human dimension of enterprise and industrial management found its most strident embodiment in industrial psychology. In the period from the 1920s to at least the early 1960s industrial psychology held intellectual hegemony over the interventions that were applied at the enterprise to improve and shape the orientation of skill formation.

So, just as it is possible to pose the question today, we can also pose it historically and ask: what were these attempts at the coordination of enterprise skill formation in the pre-democratic period (in both its segregationist and its apartheid forms); how did it function institutionally and organisationally? Did it achieve what was intended, if not, why not? Since I pose this question historically, I apply it as well to the contemporary period.

1.3 The Research Problem and Question

This thesis revolves around three fundamental issues that are related to the coordination of the supply of enterprise skill formation. The first overarching issue relates to the definition, application and usage of the concept of coordination to characterise contemporary and

historical changes to the formation of enterprise skill in South Africa. The time span assigned to explore this dimension covers the period from the mining revolution in South Africa (i.e. 1870s) to the more contemporary period (circa. 2013).

The second overarching issue concerns the role and function of the enterprise in skill formation. Because of its ability to generate resources, the enterprise also has the capacity to attract outside interests who hold a different set of specialised insights about the best route to follow, in order to enable the enterprise to function as a source for skill formation. Thus, the thesis tries to prise open the operations of the enterprise by giving closer scrutiny to its calculative and coordinative practices. Traditionally, these calculative and coordinative practices have been treated merely as a black box through which the operations of the enterprise have remained hidden.

The enterprise as a site to the coordination of skill formation leads inevitably to the third fundamental issue and this concerns the training or skills levy as an instrument of coordination to the supply to enterprise skill formation. As will be shown in the literature review below, the skills levy in South Africa lends itself to sociological interrogation in respect to calculative and coordinative practices within the enterprise which has an effect on how the levy is used by firms and enterprise as well as the alternative measures which enterprises can deploy as they use the levy to advance their training and skill formation requirements.

Having outlined the themes which this thesis addresses, I apply to the subject matter the question which permeates the entire thesis. It is essentially to understand the process of the coordination of enterprise skill formation in South Africa. Thus the question which the thesis poses is the following:

What were the institutional mechanisms for the coordination of enterprise level training in South Africa? How has this changed? Is the coordination of enterprise skill formation likely to result in what was intended?

1.4 Structure of the Thesis

This thesis is structured as a narrative of the process of interventions made by the state, enterprises and other groupings inside and outside the enterprise, to shape the substance and content of enterprise skill formation in South Africa. The analysis concentrates on three different historical periods. The first period extends from the late 19th century to the period just before the Nationalist Party came into power. An analysis is provided of the institutional mechanisms to the coordination of enterprise skill formation and how it changed over the period.

A similar historical overview is undertaken of the process to enhance the coordination and supply of skills to enterprises and firms in the period that the Nationalist Party was in power. Because there is such a thoroughly rich record of insight and intervention that was made to improve the coordination of enterprise skill formation in the period of apartheid reform, quite a detailed and extensive analysis is provided of evidence and insights which the Riekert and Wiehahn Commissions left in their wake. These very significant apartheid reform commissions were also at the heart of the process which witnessed attempts to construct sectoral based levy grant mechanisms for enterprise training.

But it was the period after the ending of apartheid which witnessed a more systematic attempt to improve and systematise the coordination of enterprise skill formation. Chapter 7 in particular provides a very detailed analysis of the institutional architecture and the tools, instruments and mechanisms that were put into application to enhance enterprise skill formation. This culminated in the design of a national levy-grant system which is financed by payroll levies imposed on firms and enterprises. The analysis however also addresses the intermittent policy shifts and institutional shifts which the state as the principal agent to the process formalised and put into practice.

Chapter 2: Research Methodology

2.1 Introduction

The research is framed to comprehend the influence and impact on the coordination of enterprise skill formation in South Africa over a relatively extended historical trajectory. This period spans the turn of the 19th century, spilling over into the initial phases of the second decade of the 21st century (circa. 2013-2015). The research evidence which buttresses this thesis is simultaneously historical and contemporary.

This thesis was initially conceived as a study of the relationship between work, education and training and the status of disciplinary knowledge. It was meant to explore the impact of these dimensions on the National Skills Development Strategy (NSDS). At the time it was conceived, the first phase of the NSDS had come to an end. The second phase had at the time just commenced.

My intention was to understand the current strategies that shaped the NSDS and compare it with experiences recorded in putting the first proto-institutional architecture of a skills development system into place which was starting to germinate in the 1930s and 1940s during the segregationist period of South Africa's history (i.e. before the Nationalist Party came to power in 1948). Unfortunately, investigating the historical records for this period, some of which are in archives in Johannesburg, Pretoria, Durban and Grahamstown, was not practically feasible at the time. Consequently, the proposed study had to be amended. It was therefore revised to understand the conceptual purpose which was embedded and infused in attempts to create a coherent skills development system in South Africa.

I noticed that apart from the challenge of creating a more coherent and integrated skills development system after the onset of democracy in 1994, there was also a strong thread which pointed to coordination as an important goal in building a skills development/formation system. Traces of attempts at coordination were also evident during the early phases of the vocational and training system in South Africa's history. There is evidence that this started taking place already during the segregationist period (1910 to 1948). Thus, access to government commissions of enquiry provided an inroad into studying the

historical dimension to the coordination of an emerging skill formation system in South Africa.

My practical employment obligations since 2001 gave me the opportunity to be involved with labour market research and this has mainly covered different facets which were related to the skills development process. It provided an opportunity for a more detailed overview and perspective of the general performance of the new skills and training dispensation which was being assembled in South Africa. Some of this research was undertaken for the Department of Labour and its Skills Development Planning Unit (Bhorat & Lundall, 2002; Lundall, 2003a). Other research explored dimensions of skill through an interrogation of firm-level experiences (Lundall, Majeke & Poswell, 2004; Lundall, 2005; 2006a; 2006b). Further research was more critical of the pattern in which the new skill formation system was evolving (Lundall, 2003b). These research outputs were generated on the basis of qualitative interviews, typically supported by an interview schedule (Lundall, 2005; Lundall, Maree & Godfrey, 2008; Maree, Lundall & Godfrey, 2009). In some cases a firm-level survey was used (Lundall, 2006b).

This research referred to above was motivated by a desire to use data from panel-firm surveys. It was influenced by the Africa Desk of the World Bank who roughly at the same time had been conducting firm surveys of enterprise performance in three South African metropolitan areas: Johannesburg, Durban and Cape Town. I was fortunate to work on a project in which data for the World Bank survey for the Greater Metropolitan District of Johannesburg was analysed. Our study incorporated evidence from the National Enterprise Survey which had been completed at roughly the same time (See Bhorat & Lundall, 2002). Researchers at the time realised that firm survey data provided extremely rich perspectives of the dynamics within enterprises and for me there was the interest in empirically measuring the skill acquisition and skill formation of employees within firms and industries that were surveyed in this manner.

Over a relatively short period between 2003 and 2007, I had conducted a large number of interviews with key informants as well as informants representing firms (some of whom were the owners and CEOs of these) and was adamant that I did not have the energy to endure such intensity in the course of writing a thesis. In any event, I was also reaching a point of frustration, because many of the informants to whom I spoke were not able to answer specific

and complex questions about the new skills development system. One example, of my naivety was that I could not understand (and still find it perplexing) why mandatory grant funds could not be sequentially used to finance a trainee on a learnership or apprenticeship programme engaged at a firm so that it is completed over a three or four year period. This only became clear to me when I studied the NTB/NEDLAC Reports and the 1997 Green Paper on Skills Development

2.2 Research Design

The extraction of empirical evidence to uphold the thesis, dictated the design of the study. In order to sharpen the conceptual formulation of the study, it was necessary to undertake a detailed review of the literature that defines ‘skill’. This was necessary in order to ground the consultation of primary and secondary literature. The same process had to be undertaken to give meaning and to elaborate the concept of coordination. Since the concept of coordination was being framed through a sociological understanding, it was obligatory to undertake a rather detailed review of pertinent sociological analysis where this concept is used. It was therefore necessary to discuss the work of key authors who deploy the concept of coordination sociologically. Furthermore, a similar process was necessary to further my insight into enterprise coordination. Since the work of Thelen (2004) which this thesis draws upon can be located in the Varieties of Capitalism (VOC) approach to comparative analysis, where a distinction is made between coordinated market economies and non-coordinated market economies (often typified as liberal market economies), a brief review is given of research work which makes use of this approach. A more overarching perspective to the depth and breadth of the concept ‘coordination’, however finds the most congruence in the work of Ernest Alexander (1995). The conceptual approach to skill and coordination was thus used to select and direct my reading of evidence to the coordination of the supply process to skill formation in South Africa.

2.3 Research Methods and Techniques to Extract Evidence

Four essential sources of empirical evidence was examined and digested to complete this thesis. The first source and bulk of the evidence was obtained mainly from official

documentary sources. These also included published material that made reference to aspects of coordination or its challenges which the official sources highlighted.

Arguably, the most comprehensive record of the challenge which coordination presented – especially to administrators and theorists of the state and its institutional apparatuses, including its knowledge advisory bodies (e.g. the National Council for Social Research, the Prime Minister’s Advisory Council and the Human Sciences Research Council) – was captured in Commissions of Inquiry. Typically these were in Commissions of Inquiry produced after the four South African provinces (i.e. the Cape, Natal, Orange Free State and Transvaal) were merged into a national union and British dominion in 1910. As is shown in Chapters 5 and 6, Commissions of Inquiry were read for traces of conceptions to coordination as it applied to the domain of skill formation. Following Althusser and Balibar (1970), a symptomatic reading was directed to these Commissions of Inquiry with the purpose of making the concept of coordination visible as well as locating its axiomatic character in the process of state formation initially under a union government and subsequently under racially exclusive and after 1994 democratic republican governments. It is the drift and flow of the Althusserian breeze as well as Koyre’s (1943, 1953 & 1968) insights into the formation of new concepts in the history of the astronomical and physical revolution which guided my thoughts into a symptomatic reading of the presence, status and effect of coordination in the discourse of the skill formation process in South Africa.

The reports of the Wiehahn Commission of Inquiry (1979-1982) demonstrated perhaps the depth and richness of maintaining such a symptomatic reading. Notwithstanding its location in the political economy of apartheid’s reform, a symptomatic reading conceives the tasks and objectives which resulted from the Riekert and Wiehahn Commissions particularly those that apparently remained invisible. The coordinative dimension of these last bold apartheid-reform commissions of inquiry were the more startling and interesting but were typically not recognised as such in the literature that traces the formation of skills from the mid-1980s. Although the post-democratic investigations into the skills formation process which started with the National Education Policy Initiative (NEPI) had a stronger focus on institutional coordination framed in the language of technical rationality and efficiency, the rich vein of public documents and reports emphasised the importance of giving continuity to the symptomatic reading of these official documents.

The second source of empirical evidence drawn upon to substantiate or confirm arguments in the analysis of the coordination of enterprise skill formation in South Africa was embedded in a large body of secondary source material. Ultimately it was only the most relevant of these which were cited as source evidence in the thesis. Babbie & Mouton (2001: 374-383) refer to the use of primary and secondary documentary evidence as a form of unobtrusive research in which evidence is assembled or extracted without interposing the presence of the researcher on the shape or content of the evidence.

In contrast, my presence in the research field as a participant observer over a long duration may suggest my intrusion as a possible influence on the subject matter for this third source to the empirical evidence which I have used. However, this possibility is so remote, such an influence of my presence on informants generally minimises any intrusion to nothing more than background noise. Indeed I have served as a participant observer to two different types of institutions active in the current skills development dispensation in South Africa. This was to the advisory and ostensibly policy making body currently known as the National Skills Authority (NSA), but the period of my participation on this body (2005-2007) ended almost a decade ago. I served on the NSA as a member of the Community Constituency to NEDLAC. Subsequently (2010-2011), I served for an interim period as a board member to the Clothing, Textile, Footwear and Leather (CTFL) SETA and the Wholesale and Retail (W&R) SETA representing the South African Clothing and Textile Workers Union (SACTWU). In both instances, apart from practical measures to support specific groups (e.g. the community constituency and the labour constituency) the theoretical objectives of my participation on these bodies was to understand how they functioned especially in relation to the levy-grant system which was taking shape in South Africa. Thus the conclusions that I subsequently reached as a result of these insights has been on the basis of soul-searching and self-interrogation. Nonetheless the insights that I gained from participation on these bodies has been invaluable. The conclusions that I drew were however not magically discovered through participant observation. The conclusions that I arrived at over the course of an arduous journey have been mainly on the basis of theoretical labour and this has generally been quite independent of these constituents to whom I was previously engaged.

The fourth and probably final clutch of empirical evidence which was required to complete this thesis was through the assembly and extraction of evidence of the incidence of self-financed training expenditure which firms incurred and which remained outside the reporting

obligations of the national levy-grant system that is in place in South Africa. I have referred to this phenomenon as an incidence of the out-of-pocket expenditure on training which firms undertake. I initially sought to establish this evidence through the administration of a pilot questionnaire involving roughly 43 firms in Cape Town. I have subsequently come across more credible evidence of out-of-pocket training expenditure among firms in South Africa which is consolidated in a report of a national skills survey (Paterson, Visser & du Toit, 2008). This evidence is a more robust demonstration of the pervasiveness of out-of-pocket expenditure on training among firms in South Africa.

While the process of empirically demonstrating the existence of the practice of out-of-pocket-expenses among firms that paid a skills development levy to the South African Revenue Services which is subsequently transferred to the skills levy disbursing agencies (e.g. SETAs and the NSF), may appear peripheral to the coordination of enterprise skill formation, it is in fact quite central to it. Out-of-pocket-expenses are a reflection of the dynamics of enterprise coordination of skill formation. But these dynamics only become apparent through a process in which firms make technically rational decisions and calculations about skills training trajectories which is best suited to their needs. These are often couched as a detour from state programmes which are interpreted by such firms as bureaucratic and less responsive to the immediate and direct training requirements of such firms. But reliance on out-of-pocket expenditures as an exclusive trajectory that firms pursue is not a universal phenomenon. Even where firms choose to play an active role in state sponsored levy-grant mechanisms to advance workplace training, a high number of such firms will also engage in the practice of out-of-pocket expenditures for skills development and training. It probably gives such firms a level of control and a guarantee that things will get done quicker and more effectively if they do it themselves. Essentially, I argue that out-of-pocket expenditures are pursued as a route or tactic to enhance the coordination of skill formation within the enterprise itself.

However, this incidence alludes to a trend whereby firms are choosing to some degree to opt out of participating fully in the current levy-grant system for skills development in South Africa. This trend raises the possibility that current attempts by the state to coordinate the supply of enterprise skill formation, is not comprehensive. Indeed, the growth in the incidence of the phenomenon of out-of-pocket training expenditure among firms and enterprises indicates that voluntarist mechanisms to the coordination of the supply in the formation of enterprise skills in South Africa may have reached a turning point. It may be on

the rise once more, just as was the case at the beginning of the twentieth century when policy makers realised that the vocational training dispensation in South Africa which experienced a minimum level of state coordination presented an opportunity to in fact initiate the initial steps of its coordination by the state. This process has continued ever since and into the present period. Evidence of a contrary phenomenon may in fact suggest a turning point where the skill formation system is once more being drawn, even if only symbolically to its initial starting point at the beginning of the twentieth century. This thesis attempts to explore the evidence whether such a trend is likely in South Africa.

2.4 Research Ethics

While my experience and insight from previous research investigation has been used to enrich the insights and understanding of the skill formation process in South Africa, the research which I have conducted for this study has not been undertaken elsewhere. It is unique to the present study. I have also not reproduced in this thesis material that has appeared elsewhere and in other publications.

This research was guided by the principles and values of ethics which the University of Cape Town tries to instil in its students. These ethical principles and values were also instilled over the many years that I spent in research units at the universities of Cape Town and Western Cape respectively. Many years later, Babbie and Mouton's (2001) handbook on the practice of social research, helped to reinforce these dimensions in the practice of social research.

In following the research design and research methods which were customised for this thesis, it was not necessary to conduct primary interviews. Nonetheless, in the initial phase of the research, it was necessary to conduct a small pilot survey among firms in the metal and engineering and ICT industries to collect evidence to verify the proposition that firms resort to some level of 'out-of-pocket' expenditure to advance employee training that is not adequately financed by payroll levies regulated by the state. Through an electronic questionnaire, respondents representing firms were informed that the 'study explores the levy as an incentive and stimulant to further training within firms and enterprises'. In the letter accompanying the pilot questionnaire, an undertaking was given that: 'All the answers that

you provide will be treated confidentially. Results will therefore be reported without details of the names and location of firms'. Even though qualitative interviews were not used in this study, the same principle guided the use of sensitive insights and information that was volunteered by SETA officials with whom I spoke. The same principle dictated abstinence in the use of confidential and sensitive information which was at my disposal through participation as a board member on the NSA and subsequently as a trade union representative on the boards of the CTFL and W&R SETAs respectively.

Writing this thesis would not have been possible without ongoing curiosity as a close observer and occasionally as a willing participant in the emergence of a new skill formation dispensation in South Africa over many years. But in following Althusser's adage that history is a process without a subject, my participant observation insights are treated in exactly the same manner as I would in reading, interpreting and interrogating conceptions to the skill formation process and its coordination as these have been elaborated in public documents such as Commissions of Inquiry. It is merely a method of gathering evidence to understand complex processes.

Chapter 3: Defining Skill: A Review of the Literature

3.1 Introduction

In this chapter the inter-related components that constitute 'skill' is examined. First, a number of permutations in the definition of skill are provided. Because 'skill' in the contemporary period has become significantly more important as an object of policy discussion and intervention, its frequent usage has compelled writers to advance a common understanding of the concept. But as Francis Green (2011) has shown, these definitions have generated more disagreement than consensus. Different intellectual disciplines have also tried to impose their specific stamp onto these definitions, which has in turn aggravated the levels of resistance, disagreement and critique. Second, an important distinction is drawn between the skill attributes of individuals versus the skill attributes of jobs. Neither of these attributes is immutable. However, when the balance between the skill attributes of individuals and the skill attributes of jobs is disrupted, disequilibrium and upheaval ensues. It is spearheaded mostly by the opportunities and rewards versus the misfortunes and losses which the new conditions bring about.

Finally, I have attempted to formulate a consistent working definition of skill which is functional and flexible and can be used to give some anchorage to the comprehension of skill as it is used in the entire thesis. Since most things have a source, rather than getting completely muddled with trying to formulate a definition of skill which is only partially accepted, it is better to pose the problem differently and thereby sharpen the formulation. This is done through an analysis which distils skill through the processes which contribute to it as a source. In this way, one is able to pose a double question about what skill is and where it comes from.

3.2 What is Skill?

Much of the literature that addresses the question of skills give more attention to the availability and circulation of skills and the existence of gaps and shortages among those who

hold skills. There still remains a dearth of texts systematically informing us what skills in the world of work really are. In recent years there has been an explosion of considerations given to different types of skill such as soft skills versus hard or technical skills. Examples of soft skills include communication skills, assertiveness and attitude and dedication. Hard or technical skills typically consist of skills which have a foundation in mathematics or numerical computation. Skills in the engineering and applied sciences are examples of hard or technical skills. South African policy discussion has taken some of these considerations to heart, but it has also put quite a lot of emphasis on scarce and critical skills (see the chapters in Erasmus & Breier, 2009).

3.2.1 The Social Construction of Skill

Almost without exception, the literature is virtually in unison in positing skills as being socially constructed (Rigby & Sanches, 2006). Conceptions of the social construction of skill highlight the tension that different parties or interests hold with respect to knowledge, skills or experience. Perspectives which advance a strong view about the social construction of skills usually also accept that the elements that contribute to skills such as knowledge, skills or experience are often highly contested. The context through which the social construction of skill is presented is considered important. Emphasis is also placed on the system of industrial relations prevailing at any given time as an additional factor which shapes the context through which skills are constructed. Rigby and Sanchis (2006) capture the tension in this dynamic as follows:

‘Workers selling their labour are likely to define their skills differently from employers buying them. For workers, their skills are a combination of knowledge, skills and experience they have acquired both before entering employment and during their careers. Their definition of their skills is likely to include elements they use in their present jobs, in previous jobs and even elements they have never used but could if required. This concept can be called effective skill. Employers on the other hand, tend to define skill more narrowly, from the point of view of the requirements of the job after due analysis. This narrower definition can be termed nominal skill, which is normally the only skill employers are prepared to recognize (and reward)’ (Rigby and Sanchis, 2006: 23).

But it is within the interstices of social relations where the process of social construction is deeply embedded. Nowhere is the social construction of skills more prominent than what is recognised for jobs women do in contrast to men. Similarly, such social construction is

evident in the wage and salary rates that differentiate male jobs from female jobs. Often as Rigby and Sanchis (2006) indicate, the criteria used to order the substance of skill can be quite ambiguous. Drawing from evidence of collective agreements from the textile industry in Spain, Rigby and Sanchis (2006) noticed that sewing jobs which were performed mostly by women were classified as skilled while cutting-out work which was dominated by men was classified as unskilled.

Skill also has distinct geographical and contextual characteristics. Due to differences in factor intensities of production (including distinct capital and labour intensities), the skills of metal workers from Gary, Indiana are not the same as the skills of metal workers from Vanderbijlpark, Gauteng¹. But in both of these distinct geographical contexts, skills are also conceptually transient: these can be eroded as well as upgraded. This is especially true with changes in the organisation of production. This transience contributes to differences in the social meaning of skill.

3.2.2 Situating Skills through Intellectual Disciplines

Noon and Blyton (2007) suggest that intellectual disciplines play a significant role in structuring inquiry into skill. Different disciplines situate skills differently. This means that disciplines which situate skills using quantitative measurement criteria will develop a different approach to situating skills compared to disciplines which make greater use of strong qualitative criteria.

Thus, Noon and Blyton (2007) examine skills through its location or situation². Here, three distinctions are made. These are: first, skills within the person; second, skills within the job and third, skills within its setting. Specific intellectual disciplines usually set the pace in advancing such enquiries.

The situating of *skill within the person* builds on the premise that skill is an attribute of individual qualities and talents. The approach to measure the quantity and quality of skills within the person is favoured by occupational and industrial psychologists and economists. Typically, occupational and industrial psychologists uncover skill within the person through

¹ Gauteng is a province in South Africa. While geographically the smallest province in the country, it is the dominant economic and manufacturing hub in South Africa.

² Noon and Blyton (2007) refer to the location of skills. I have amended the idea of 'location' and replaced it with the notion of 'situating', which I think is less instrumental and more sensitive to context.

test batteries such as aptitude tests. These tests link skills to competence. Similarly, economists (particularly the human capital theorists) measure skill within the person through the amount of formal education and on-the-job training obtained by individuals as well as the amount of experience that they have accumulated in their jobs or occupations (Noon and Blyton, 2007: 117).

Analysing the situation of *skill within the job* focuses on the tasks that are necessary to perform a job competently. An orientation to the analysis of skill within the job tends to be deployed more often by management theorists as well as industrial and employment relations theorists. Noon and Blyton (2007: 123-124) suggest that a number of approaches can be followed in analysing the content of skill in a job. They discuss two and there may be some merit to digress and discuss what these are before we address the third and final approach to the situating of skills.

The first is to analyse skill in a job by assessing its difficulty. Progress can be made by observing the content and steps required to do a job effectively and efficiently. This becomes a tricky exercise when applied to jobs that require its holders to exercise greater tacit skills. Undervaluing the level of tacit skills necessary for the jobs can cause it to be incorrectly classified in terms of skill content. As an example Noon and Blyton mention how jobs that require a good technical knowledge in for instance a sales environment can be performed better by incumbents who have a combination of good technical knowledge and high social skills. A *techno-geek* without any social skills would be abysmal in holding such a job.

The second approach which can be adopted to analyse the content of skill in a job is through assessing the amount of discretion which the job allows its holder to exercise. Borrowing from the work of Elliot Jaques (1967), this implies distinguishing between prescribed (rule dominated) and discretionary (choice dominated) work. Although Noon and Blyton have cautioned using this approach with sensitivity to the context in which it is located, the idea behind it is that work which has a higher discretionary orientation correspondingly embodies a higher skill content compared to work which is more prescriptive in orientation.

The third and final approach to the situating of skills does so in its setting. This is the approach social constructionists prefer. Social historians, gender theorists and sociologists and social anthropologists are more inclined to explore skill through its social setting.

Essentially it translates into understanding how people make the best use of their capacities to succeed against the adversities which they confront and which threatens failure. Although there are large divergences to the investigation of skill within its social setting, the ethnographic study by Douglas Harper (1987) provides eloquent testimony to the insights that can be gleaned by analysing the situation of skill in its social setting. Through his interviews with Willie, the subject and sole informant to the analysis of working knowledge, Harper suggests that the situating of the content to the skills which Willie possesses resembles an instinct of workmanship. The ingredients of previous training, experience, informal learning and the application to an art of workmanship would in contemporary discussion be referred to as 'skill' within a specific context. It has been described by Harper in the following terms:

'Willie's method can be summed up as an inductive approach fuelled by attention, patience and creativity. I've talked about the role of the setting: the idea that a certain kind of environment requires its own form of survival, which for some becomes a working method. I've shown how Willie's attitude and method are similar to those of people who make and repair things centuries ago. I've suggested that Willie's working knowledge is due in part to the way he learned – informally from his own kin, throughout the years of his motivation. The working knowledge depends on a deep and thorough knowledge of materials. The working method depends on a certain attitude toward time stated most modestly as patience, most dramatically as a kind of contemplative attitude that sees all steps to an end as equal. The working method is a combination of small steps of hypothesis forming and testing through which many inductive strings lead to deductive generalities that launch more inductive experiments. It depends on a kind of kinaesthetic knowledge that is difficult to describe, close as it is to the actual flow of experience. In these ways I've 'disassembled' Willie's method, but I feel I've also dismembered it' (Harper, 1992: 148).

Workmanship tends to be reinforced by isolation from the mores of society. It is also the process which gives a mechanic like Willie a sense of identity which puts work ahead of time and money. The entire combination of training, talent, experience and an instinct of workmanship, compels one to conclude that these attributes can only be conveyed between people through comparisons where skill is the sole denominator between people holding and yearning to possess similar attributes³. A wider canvass to the exposition of the situating of skills can be showcased by exploring how skill is seen through policy analysis of national training discourse.

³ Also see Gamble (2004) who makes a similar point in relation to craft pedagogy.

3.2.3 Skill seen through Policy Analysis of National Training Discourse

The policy analysis of national training discourse can also have an impact on the way skills are conceived. Jonathan Payne (2000) addresses this issue in relation to UK education and training policy discourse. Payne's (2000) article shows how the absence of a framework to consider the problem of skill has tended to confine skill to qualifications and credentials⁴. More importantly however, Payne traces some of the dominant forces which have contributed to skill acquiring greater prominence in UK policy discourse.

Payne (2000) attributes four catalytic processes to the prominence of skill in UK policy discourse. Because the borrowing of policy is prominent in late-starter countries such as South Africa, especially from policies formed in the UK, there is merit in enumerating these processes. *First* the shift from 'traditional manufacturing industry towards services, coupled with the growth of employment in professional, technical and administrative occupations' (Payne, 2000: 354), has had an important influence on ideas about skills intervention in UK policy discourse. Payne argues that the shift towards service industries and occupations required greater interaction between employees and their clients and customers. It implied that employees required higher exposure and training in soft and relational skills. Examples of these include face-to-face and voice-to-voice interaction.

Second, the growth of services in the national economy necessitated the industrial restructuring of traditional industries particularly in manufacturing. Theories of post-Fordism, flexible specialization and the learning organization – which emerged out of this – put a higher premium on integrated systems. A labour force within the higher echelons of the occupational ladder bears greater responsibility at ensuring that such integrated systems function. Thus, more of this burden falls on those within the professional, technical and managerial strata. The premium placed on new skills for those in this grouping would therefore be higher than before. In Payne's words, the 'high-tech forms of integrated manufacturing place a premium on a range of advanced analytical and interaction skills such as communication, problem solving, team working and creativity as the key drivers of comparative advantage in high quality, high-value added product markets' (Payne, 2000: 354).

⁴ Although critical of the tendency which conflates skill with qualification, a closer reading shows that Payne himself does not entirely escape from this tendency.

The *third* process involves the intensification in the use of information and communication technologies. Entry into the ranks of the new knowledge workers demands ‘people who can manipulate “symbolic languages”, think holistically in “systems” terms, as well as creatively handle and apply ever increasing quantities of knowledge and information across diverse contexts’ (Payne, 2000: 354).

Finally, as an example of the *fourth* process, the high unemployment levels that were experienced in the mid-1970s especially among new entrants among the youth, compelled policy makers to adopt a more instrumentalist interpretation of skills delivery. Pressure for employment absorption led to a closer connection being made in policy discourse with employability. New entrants were trained to undertake jobs that would lead immediately to employment. These jobs were often associated with high levels of turn-over. Thus, the immediate beneficiaries of the training programmes end up shortly afterward being unemployed again. Instrumentalist measures are usually ameliorative only in the short-term but fail over the long-term. The initial beneficiaries often end up where they started: either unemployed or alienated in dead-end jobs. Due to the difficulty in sustaining an instrumentalist outcome between skill acquisition and employment absorption, the emphasis on adaptability for employability resulted in much of the skill transfer taking place through soft skills. This was done to mitigate the effects of instrumentalism in training policy. But it also dovetailed with the application of soft skills in the ICT-driven knowledge economy.

Payne advances a conception of skill that is made up of the requisite attributes individuals require to perform a job on the labour market. These attributes can be met through skills. Skill transfer takes the form of an education transfer, training transfer or knowledge transfer. The proof of the transfer is usually shown as the award for acquiring some qualification or certification. Payne represents the school of thought which assumes that skill and qualification bear a close relationship.

3.2.4 Anglo Saxon versus European Conceptions to Perceive Skills

Clarke and Winch (2006) have noted that different conceptual perspectives which they refer to as frameworks give different meanings to skill. Within the European context, two

frameworks or conceptual perspectives are said to exist: an Anglo-Saxon and a European skills framework.

Under the Anglo-Saxon skills framework, according to Clarke and Winch (2006), writers such as Ashton and Green (1996, cited in Clarke and Winch), refer to skills as: social attributes, general education, training, qualifications and technical skills. Other writers such as Grugulis, Warhurst and Keep (2004, cited in Clarke and Winch) make a clearer demarcation between the components that constitute skill. They differentiate between skill as human capital (which they derive from Gary Becker), skill as jobs (drawn from Braverman) and skills as socially constructed through negotiation. Clarke and Winch note further that the definition of skill used by Ashton and Green (1996) ‘includes practical propositional knowledge, virtues and character attributes, social abilities and formal educational outcomes’ (Ashton and Green cited in Clarke and Winch, 2006: 256).

Clarke and Winch (2006) complain that among the dangers in the various conceptual uses to skill by Anglo-Saxon theorists, in general (but exemplified in the writing cited above), is incoherence and conceptual inflation. Conceptual inflation occurs when a relatively narrow range of applications are given wider interpretations. It creates ambiguity and incomprehension. Moreover, when the experience and understanding of skill in Europe and particularly Germany is viewed through the Anglo-Saxon lense, they argue, there is a search ‘in vain for its German equivalents’ (Clarke and Winch, 2006: 256).

Under the Anglo-Saxon conception of skill (as used in the UK, USA and Australia including commonwealth countries where similar perspectives prevail), skills bear a close resemblance to specific tasks that are applicable to industries, occupations and jobs. Here, qualifications per se do not indicate whether a particular level of skill has been achieved. Vocational qualifications can certify some contextual linkage with industry, but general education remains non-specific to industry, occupation, job or task (Clarke and Winch, 2006: 257). Two implications follow. First, measuring qualifications in an Anglo-Saxon context is insufficient to comprehend the overall level of skill. Second, as Clarke and Winch remind us, the possessor of skill may be certified to do specific jobs or tasks but yet not be in possession of an occupational or industrial qualification. As Clarke and Winch argue, the Anglo-Saxon notion of skill is synonymous with ‘know-how’ and ‘technique’. Possession of ‘know-how’ for the job or task is distinct from possessing the qualification. Clarke and Winch point out

that this notion of possession as applied to skill can be equated to property. It corresponds to a nineteenth century sense of *property in skill*. The notion of skill as possession can be traced from Adam Smith through Marx to Braverman (Clarke and Winch, 2006: 257). At least from the period when Adam Smith was writing, the notion of skill as property was associated with traditional apprenticeships.

Having shown the Anglo-Saxon notion of skill to be an individual attribute which bears no direct association with an industry or occupation, Clarke and Winch (2006) further segregate skills from knowledge. Using the work of Gilbert Jessup to substantiate the argument, skill is revealed through the demonstration of an application whereas knowledge is elicited through the abstraction of conversation, questioning or working. Four elements summarising the main characteristics of the Anglo-Saxon conception of skill are advanced by Clarke and Winch (2006: 261):

- Skill is an individual attribute or property;
- Skill is associated with tasks and jobs rather than with industrially based occupations;
- Skill is associated with physical or manual mastery or ability;
- Skill bears no particular association to a knowledge base.

Germany is cited by Clarke and Winch as an example of a country where a European conceptual perspective frames the understanding of skill. It is in sharp contrast to the dominant perspective of skill in Britain. 'Skill' in Germany is signified conceptually by qualification. This gives rise to the presumption in Germany that a formal industrial qualification endows its possessor with the capacity to perform a range of work activities. In countries such as Germany, academic and vocational education and training institutions are the bedrock on which a valid high quality qualifications recognition, exchange and reward system is constructed.

The importance placed on applied theoretical knowledge which is specific to an occupation in Germany reinforces what the English would refer to as 'knowing that and knowing how' (paraphrased from Clarke and Winch, 2006: 263). Since the nature and content of this knowledge in Germany tends to be negotiated by the social partners, namely trade unions and employers, it has wide social legitimacy and acceptance. This social arrangement extends to the vocational education curriculum, its assessment and certification which the labour force is

induced to undergo. Thus the German industrial qualifications process differs from the task or job skills that is a hallmark of the UK and in its stead provides for knowledge which has a legally controlled status (cf. Clarke and Winch, 2006: 264).

Knowledge deemed appropriate for an occupation in Germany is designed to fit into the overall occupational structure within the specific industry for which it is assigned. In terms of technical requirements, the possessor of occupational knowledge is required to act independently and in cooperation with others (Bundesinstitut für Berufsbildung cited in Clarke and Winch, 2006: 264). Emphasizing the content of the theoretical knowledge incorporated into the vocational qualification in more detail under the conditions in Germany Clarke and Winch write:

‘It will typically encompass: knowledge of the industry as a socio-economic entity, including the structure and organisation of firms; relevant theoretical knowledge, such as mathematics and physics, and understanding of how it is applied; technical and practical knowledge needed to practise a particular *Beruf* in its current, likely future and even past state of development; knowledge of its relation to the rest of the industry and to other *Berufe*; legal aspects such as liability, employment and labour law; economic aspects such as cost; as well as general knowledge, civic awareness, health and safety, and environmental protection’ (Clarke and Winch, 2006: 264).

Thus, vocational qualification in Germany is designed for wider socialisation and incorporation of individuals into the occupational milieus in which they will serve. Even where the qualifications are eventually matched, Clarke and Winch (2006) maintain that a qualified worker in Germany has a broader knowledge and responsibility compared to a skilled worker in the UK context. If the equivalent to the English notion of skill is sought in Germany, Clarke and Winch maintain it will only cover ‘a small part of a much more wide-ranging and complex capacity which is linked to an established occupation within an industrial structure and enjoys social and legal recognition’ (Clarke and Winch, 2006: 265). This interpretation finds endorsement in the work of Greinert (cited in Clarke and Winch, 2006: 265) and to some extent it is also an approach which the educational philosopher Kerscheinstainer argued for earlier.

Since pressure for the recognition of workplace qualifications in Britain is usually made from an individual trade level instead of an industrial level, many abilities outside the trade level but within the industrial level remain unrecognised as skills (cf. Winch and Clarke, 2006:

266). The work which gets done using such abilities is labelled 'unskilled'. The decline of tripartism in which skills were recognised instead encouraged employers in Britain to continue this trend. In the UK Construction Industry, as documented by Clarke and Winch (2006) an employer demand-led system for accredited workplace qualifications was spearheaded by individual employer associations. But it was directed towards workplace qualifications within their specific areas of operation. Areas falling outside these spheres such as groundwork and civil engineering remained unrecognised and without training taking place within it. But even when these skills are recognised, they are not necessarily remunerated as skilled occupations in collective agreements, nor is there a guarantee that such recognition leads to formal training (Clarke & Winch, 2006: 266). In the aggregate, national vocational qualifications in the UK context have only limited social recognition and it does not command the same standing as vocational qualifications do in Germany.

Unlike a European skills framework, there is less correlation between skills in individuals and the skills of jobs under an Anglo-Saxon framework.

3.3 The Skills Attributes of Individuals versus that of Jobs

In the analysis of work related skills, economists have sought to draw insights from analyses which have focused on both the skills attributes of individuals in employment as well as skills required to perform specific jobs or clusters of jobs within the labour market. With the first approach, wage data has been pivotal in understanding changes to skills attributes. This has usually been done on the basis of covariates signifying specific educational dispositions or occupational classifications. As documented by O'Connor and Lunati (1999) studies deploying this approach have generally focussed on shifts in wage shares on selected covariates. Almost as a corollary, when combined with data on other factor inputs (especially capital and technology), the studies using wage data have widened the channels to relational themes on complementarities and substitutability. Examples that stand out are skill-capital and skill-technology complementarities and the substitutability of higher skilled workers for lower skilled workers given specific capital and technology investments at the enterprise level. Wage inequalities are thus explained by changes in the job mixes and skill upgrading of specific occupational groups. These have been reinforced by studies supported by evidence of a direct relationship between earnings and cognitive skills [Murnane et al (1995)

and Wolff (1996) cited in O'Connor and Lunati, (1999)], most of which is attributed to the phenomenon of skill-biased technical change (SBTC).

The second approach that focuses on the requirements for jobs within the labour market, has generated insights which O'Connor and Lunati (1999:11) characterise as being 'merely description, offering few insights on their own into the economic forces driving compositional shifts'. This approach has been strengthened with quantitative skill indices for specific occupations that have been listed in the United States government's *Dictionary of Occupational Titles* (DOT). O'Connor and Lunati (1999) refer to a study that was conducted by Wolff (1996) which correlates General Educational Development (GED) levels – using a scale of qualification levels acquired – with an occupational rank (e.g. managerial, professional, middle-level). The correlated result can also be given a corresponding description of its skill level (e.g. high-skilled, middle-skilled and low-skilled). In Wolff's (1996) case, deeper insight was presented through three other DOT skill categories. These three categories were: motor skills, interactive skills and cognitive skills (or substantive complexity) (O'Connor and Lunati, 1999: 13).

Wolff (cited in O'Connor and Lunati, 1999) showed that for the period from 1950 to 1990, the demand for motor skills, interactive skills and cognitive skills exhibited distinct rates of growth. These also showed changes in growth at different historical junctures. Cognitive skills grew most rapidly over the forty year period although this growth tempo had already peaked by the 1960s, slowing down thereafter. The demand for interactive skills experienced rapid growth after 1960 and this trend has accelerated even further during the 1980s. As a reminder that the demand patterns for the three different categories of skill is specifically for the United States, Wolff's evidence indicates that from 'the 1970s onward, motor skills experienced declining demand at an accelerating rate' (O'Connor and Lunati, 1999: 14). Further decomposition of the skills mix, leads to Wolff (1996) distinguishing between intra-industry occupational shifts which he attributes to technological change and the inter-industry distribution of jobs which he attributes to shifts in employment demand.

Both approaches, that is, wage inequality studies which focus on the attributes of individuals and studies that focus on the attributes of jobs are generally framed by the necessities of labour demand. Machin and Manning (1997) challenge the purely demand-driven orientation of these approaches with an argument in which firms create jobs when the requisite skills to

perform those jobs are readily available. If firms create jobs for which the skills are not available, it imposes a heavy transaction investment to source those skills. As a result firms prefer creating jobs where the skills exist. This fundamentally penalises the niche supply of workers who have the skills but who are not collectively and individually matched with employers prior to the decision not to invest in the creation of jobs more suited to their skills. Instead, firms create the jobs for which the largest groups of workers generally hold the requisite skills. In a sense, as Machin and Manning (1997: 509) claim, ‘supply creates its own demand’.

It is quite obvious that while a broad spectrum of disciplinary inputs beyond pedagogy and industrial sociology prevail in defining skill as was shown in the previous section, the field has a more monolithic disciplinary orientation with respect to the demand for skills. Discussion and inputs about the demand for skill is almost wholly conducted by economists. Measurement giving rise to data, the content of this data and its subsequent manipulation in econometric models is the rule rather than the exception. The theoretical orientation of these studies by economists appear mostly framed under the rubric of the returns to education approach as demonstrated in the work of Gary Becker particularly his influential text *Human Capital*. Subsequently the approach has generated a momentum of its own with a diversity of applications.

3.4 The Compromise of an Inter-disciplinary Synthesis

Considering the absolute difficulty of reaching a common understanding about what skill is in the theoretical and academic literature, there is certainly need for introspection and revision in order to devise a more precise definition. Lamenting the current confusion which pervades the subject, Francis Green at the Institute of Education, University of London suggests that a broader definition of skill is now timely:

‘We are dealing, in the case of skill, with a slippery concept. Its meanings range among writers from different disciplines, and among common usages. The concept has also evolved with the changing economy. Half a century ago skill was reserved in policy discourse for technical qualities, usually in craft and related occupations, and had a distinctly manual overtone. In the “knowledge economy” its meaning is a great deal broader’ (Green, 2011: 21).

Green (2011) proposes a new and broader definition of skill which permeates disciplinary boundaries. For the definition to be a success it is necessary for it to accommodate different disciplinary perspectives particularly those ensconced in economics, psychology and sociology. The definition which Green (2011) proposes is not at dissonance with definitions of skill which have been used at least since the early 1990s. To overcome narrowness which has fuelled controversy, Green (2011) proposes a broader definition which exhibits functionality and is within the tradition of political economy. According to Green, skill is a personal quality which has three features: first it is productive (P) of value, second it is expandable (E) and can be enhanced by training and development and third, skill is social (S) and is therefore socially determined (Green, 2011: 5). Green combines the acronyms of the three features of skill. As a combination, these three features can be expressed as the PES concept of skill. An advantage of the concept Green argues is that it is action-centred and premised on how individuals and social agents can change these qualities (Green, 2011: 6).

Green's timely heterodox formulation of skill provides a platform for others to use it as a framework to configure definitions of skill that are designed to address specific problems encountered in research such as that of the current thesis. The challenge of the thesis is to generate a working definition of skill which is productive, expandable and social but which also can be traced to a definitive source and can be measured empirically. Essentially, Green's definition of skill accommodates the working definition of skill that has been customised for the particularity of skills in a milieu of inter-organisational coordination which the thesis explores.

3.5 The Four Sources and Components to the Formation of Skills

There are two approaches which can be discerned from the literature to illustrate the sources of skill formation for individuals participating within the labour market. These approaches can be described respectively as a diachronic and a synchronic orientation to skills formation.

The diachronic approach to skill essentially means that it is conceived across time, mainly by following the trajectory through which individuals or groups of individuals acquire skills. The diachronic approach is best exemplified by Heckman and Lochner (1999). Despite the

heavy emphasis that they assign to appropriate policy intervention to facilitate the formation of skills, their approach importantly recognizes a human life cycle as being critical to the formation of both cognitive and social skills among individuals. With this approach, non-formal sources of skill formation such as families, neighbourhoods and firms are accorded equal prominence to fostering skills formation as formal educational institutions. For instance, higher income families present children with better access to education consumption and this also translates into accessing a better quality of such educational consumption compared to children from lower income families. The assumption is that endowments in skill formation opportunities at every stage of the life cycle, contributes to a higher proficiency and a wider repertoire of accumulated skills for individuals who enter the labour market.

The synchronic approach shows all the sources which contribute to the supply of skills within a given economic and temporal context. Synchronicity is concerned with sources and flows to education and training which is used to sustain skills acquisition. It is more concerned with medium and short-term flows that go into the formation of skills. Therefore, it places more emphasis on initiatives into skills formation that occur almost simultaneously in the present. A significant part of the literature assumes a stylised representation to such sources of skill formation. For instance cognitive skills are closely linked to formal educational attainment, whereas motor skills and interactive skills are a product of formal vocational training, on-the-job training and work experience (O'Connor and Lunati, 1999: 14). Sadoi (1998) gives a practical rendition to this stylised representation.

My approach is to structurally present the distinct elements attributable as a source to skills formation using the synchronic approach. Only what can structurally be discerned as a source to skill and can be measured is listed as such. To succinctly reiterate the basic elements to the sources of skill formation, one can designate these to be:

- Formal education and the qualifications which it provides. Formal education would constitute the appropriate knowledge which individuals holding these credentials possess. But knowledge cannot be seen: only the formal educational credential is assumed to represent it.

- Formal skills training: this typically occurs through formal structured training conducted on-the-job in an enterprise or firm or through formally structured off-the-job training conducted in a training centre, technical facility or technical college workshop.
- Skills acquired through the accumulation of work experience by workers in both their current and preceding jobs. This includes elements of job and occupational promotion and job mobility which can be attributed to accumulated work experience.

A further addition to the above three basic elements to the sources of skill formation, which will be justified below, includes:

- The capacity for learning by doing in organisations of the workplace⁵.

Using the literature at my disposal, I will assemble evidence that strengthens the quest to comprehend the inputs and sources that constitute 'skill'. This is undertaken to show how groundwork on policies for the advancement of skills can indeed be taken up.

O'Connor and Lunati (1999: 14) casually mention the above three elements as constituting sources to the formation of skills. Unsurprisingly, the vast social science literature on the subject generally acknowledges this fact, but confines itself to only discussing particular elements of sources for skill such as qualifications (e.g. Williams, 1999). In South Africa, research which the Human Sciences Research Council (see Kraak & Perold (Eds.) 2003 & Kraak & Press (Eds.) 2008) has undertaken is an illustration of this trend.

Business management theorists and economists however have not shied away from the challenge of specifying clearly the synchronic sources to skill formation. Being more representative of the business management approach, Sadoi (1998) empirically documents the institutional access points that new entrants to the labour market use to access

⁵ The notion of learning by doing is quite different from the concept of a learning organization. Both concepts put a premium on experience as a mechanism which advances learning but this is where the similarity ends. Learning by doing has no evaluative preconditions on the type of organizational controls in which learning takes place. Thus learning by doing inevitably takes place where a solution has to be found to problems confronted. The concept of the learning organization on the other hand necessitates values and organisational behaviours which support learning (See Ian Smith (2004) for a succinct discussion of continuing professional development within the context of a learning organisational framework). Learning in a learning organization usually brings about managerial styles which have less controls, encourage reflection and puts high premiums on team working within organizations. It thus has a strong evaluative component about the values that cement learning. Learning by doing on the other hand takes place irrespective of everything else. The learning organization has severe normative preconditions, whereas learning by doing is categorically factual.

employment in firms within the Malaysian Auto Parts Industry. A gradation of educational institutions train potential workers for jobs at different occupational levels. These are made up of the formal schooling system (primary and lower secondary), an upper secondary schooling structure which has a binary differentiation between academic and vocational education as well as a post-secondary system. The post-secondary system has a more functional differentiation spread between academic, polytechnic and vocational education. This functional differentiation assigns graduates undergoing education and training (i.e. sources to skill formation) to equivalent occupational places in the labour market (e.g. universities train engineers, polytechnics train technicians while vocational institutions place skilled and unskilled workers). The process of providing sources to skills is continued at the enterprise level and beyond the sphere of institutional training. Here Sadoi (1998: 325-332) distinguishes between off-the-job training, on-the-job training and overseas training. Overseas training usually occurs at a foreign subsidiary of a parent company (e.g. in Taiwan or Thailand) or at the home-base of the foreign parent company (commonly at a plant in Japan).

A significantly more elegant rendition to the sources and components which constitute synchronic skill formation is contained in regression analyses. Such analyses highlight the returns to education shown as accumulated skills to individual workers. A notation of the elements in the regression model indicates what the key elements are that econometricians have identified as probably the most critical sources to skill formation. Here, I do no more than to repeat what these elements typically are. Roomkin and Somers (1974) adopt this approach. Their article is especially relevant because it builds on the premise that formal education, training and prior experience ‘influence the point at which workers enter the internal job hierarchy of the firm but then lose their importance as sources of wage differentials’ (Roomkin & Somers, 1974: 228). Notice here that the premiums on wages are used by the econometricians to infer which sources of skill justify the highest reward. Since wage growth has a direct bearing on the nature of firm specific jobs, ‘internal promotion, on-the-job training and longevity pay increases’ [seniority pay P.L], (Roomkin & Somers, 1974: 228) are more direct determinants to wage growth.

Among the plethora of vocational training or related employment experience which workers obtain, Roomkin and Somers distinguish between formal and informal skills training. According to them, formal skills training, involves some classroom instruction whereas

informal skills training takes place exclusively on the job under the tutelage of fellow workers or supervisors (Roomkin and Somers, 1974: 231). Measures of coefficients derived from regression analysis showed that neither formal education endowment nor length of work experience or seniority was the source of significant earning differentials (Roomkin & Somers, 1974: 239). Instead, the results – applicable especially to skilled and semi-skilled workers – showed that ‘significant increases in earnings are associated with formal training on the highest paying jobs, upward mobility and the combination of formal training and upward mobility’ (Roomkin & Somers, 1974: 241). This means that the elements that give rise to mobility give a clue to the sources of skill. Using a synchronic approach, these can either be: better education, more on the job training or longer working experience or whichever elements are shown up as a justifiable reward for what makes up skill. The evidence also pointed to a positive relationship in terms of earnings from first jobs for workers particularly those in craftsmen jobs who had undergone a combination of on-the-job and classroom training (Roomkin & Somers, 1974: 241).

3.5.1 The Capacity for Learning-by-Doing

Because the notion of learning-by-doing within organisations and firms is intricately tied to illustrations of qualitative measurements and evaluations, regression analyses of econometric data tends to steer away from this topic. Mathematical economists stimulated by a seminar paper written by Kenneth Arrow (1962) were however among the first to develop theoretical models to address the problem of learning-by-doing in firms. But it has generally been management and organisational theorists and economic historians who have led the way by expanding our knowledge of the problem.

Von Hippel and Tyre (1996) have shown how learning-by-doing was vital to addressing failures experienced during machine use in a processing plant dedicated to mounting circuits onto circuit-boards (von Hippel & Tyre, 1996: 315). The relatively de-contextualised application of new technology from its design and development environment in the laboratory to its use or point of application, introduces conditions which exposed implicit but rectifiable failures in the technology. These failures or ‘bugs’ usually become noticeable outside the design environment of the laboratory, when the technology is put to use in the factory. A vision system was designed to locate specific metallised patterns on circuit boards being manufactured on the production line. During tests conducted by the machine

development group in the lab, the vision system functioned properly when tested on a sample of circuit boards from the user plant. However, in the factory, users found the vision system sometimes failed and drew the attention of the machine developers. Development engineers found that failure in the vision system occurred when boards that were light yellow in colour were being processed. Von Hippel and Tyre continue to describe the episode:

‘The fact that boards being processed were sometimes light yellow was a surprise to the machine developers. While factory personnel knew that the boards they processed varied in color, they had not volunteered the information because they did not know that the developers would be interested. Early in the machine development process, factory personnel had simply provided samples of boards used in the factory to the machine development group. As it happened, these samples were green. On the basis of the samples, developers had then (implicitly) assumed that all boards processed in the field were green. It had not occurred to them to ask users, “How much variation in board color do you generally experience?” Thus, they had designed the vision system to work successfully with boards that were green. (von Hippel & Tyre, 1996: 317)

The description by von Hippel and Tyres (1996) reveals that the engineers within the particular firm chose to pursue a design strategy in which they used a vision system in the component placing machine. Unfortunately, the vision system could not distinguish between the metallised patterns on the board and the light yellow circuit boards that formed the background and this led to machine failure. Thus the engineering decision choice was between a design strategy with the appropriate contextual knowledge or a design strategy that was oblivious to context. But the vision reading machine required contextual knowledge of the different colour circuit boards it would potentially have to read.

There are of course sceptics of the notion of learning-by-doing. Andrew Weiss (1994) described the difficulties in trying to measure the effects of learning-by-doing using a sample of workers at three factories in the United States over the period 1977 to 1979. One of the difficulties encountered was the large outflow (quit rates) and inflow (new hiring) which had to be accounted for. The context of work organisation at a factory level also suggests a spectrum of issues which could only be accounted for partially. Weiss drew the conclusion:

‘... that rapid productivity growth occurs during the first month that production workers are employed, even without formal job training programs. However, productivity growth falls rapidly and effectively stops by the sixth month on the job. The fall may be due to peer pressure not to “break the rates”’ (Weiss, 1994: 158).

Despite advancing evidence of peer pressure to ‘break the rates’, Weiss asserts rather boldly:

‘The data we have presented also casts some light on the extent to which aggregate productivity growth is due to learning-by-doing. It appears that learning-by-doing by production workers has only a small effect on productivity growth’ (Weiss, 1994: 159).

There is valid justification in establishing a relationship between the concept of learning by doing and the discussion that was had earlier about situating skills through intellectual disciplines. Here the distinction drawn in the work of Elliot Jaques (1967) between prescribed or rule dominated work on the one side versus discretionary or choice dominated work is extremely apt. I do not think that it is entirely accurate to impute discretionary or choice dominated work only to those performing higher-level occupations (following the broad parameters of the standard industrial classification system) and correspondingly to impute prescribed or rule dominated work to those in lower level occupations. While this may be the general rule in practice, exceptions would contradict the rule. Exceptions that occur more frequently are more than exceptions. Thus we have people in low level occupations that exhibit the highest degrees of professionalism and lateral thinking imaginable. One also finds a lack of vision and discretion from those occupying the highest occupational levels often being responsible for making the worst decisions imaginable: decisions which are inscribed with error and the absence of learning by doing. We all know that the planning for success or failure is typically shaped at high or senior occupational levels. Where this occurs, failure is more likely.

Charles Bettelheim (1974) reports that even during the Cultural Revolution in China, the urgency to secure economic production, by relying on internal strengths played an important role in factory organisation. This occurred despite having to rely and make use of old and out-dated machinery. This is what the workers’ management team told Bettelheim:

“Certain changes enable us also to improve quality and make labor less burdensome. In the dyeing and printing shop, for instance, everything used to be done by hand. This shop is being upgraded, but we still lack a number of machines. Those you saw this morning, which can dye and print an entire roll of jersey, were made with the help of old machines we received from another factory. The experts and specialists had always claimed that this type of machine could not possibly dye and print jersey in two colors. The workers said: ‘Why can’t it be done? Let’s try it!’ After the Cultural Revolution, they proposed the attempt be made, and after a few trials it turned out to be quite practical to print in two colors. Nevertheless, we still have problems.

“The sewing shop has machines that make it possible to cut out sleeves and sew them onto jackets in a single operation. Each machine requires but one operator, and this new technique represents progress. But the work is very hard – the worker must

simultaneously hold the cloth with her hands and operate the foot pedals, and give her full attention to this job eight hours a day. Some women workers said that this improved technique is not really an improvement because the women who operate these machines get no rest at all. A few of these machines were set aside, and we studied the problem with the operators. We succeeded in modifying the machines by eliminating the pedals.

“There were other problems. It was necessary, for instance, to cut the threads between the pieces to separate them. Here too we solved the problem through innovation – the pieces are now made and overlapped automatically, and the worker has only to position the cloth and hold it in place by hand. If this machine were in general use, the length of apprenticeship – six months in the case of the old foot-operated machines – and labor intensity could be considerably reduced”(Bettelheim, 1974: 26-27).

The problem of learning-by-doing is not unfamiliar to South African investigations although the context is significantly different from that which was presented to von Hippel and Tyres. Research by Lundall (2005) pointed to the role which early entrepreneurs in the Western Cape textile industry performed by adapting foreign technology to local conditions. Interviews suggested that a number of immigrant engineers, especially those trained in Germany as metal and engineering artisans and engineers began to branch out and establish their own firms. A number of textile factories in Cape Town emerged from such humble beginnings. These entrepreneurs were adept at redesigning foreign machines and technologies for use by lower skilled workers without dramatic losses in productivity (Lundall, 2005: 34). It is quite possible that these German textile engineers were not previously required to undertake such technological adaptation. They learnt how to do it because it was theoretically possible. Learning-by-doing may in fact be an unrecognised attribute which employees at different tiers constantly undertake at workplaces throughout South Africa. These are further illustrations of the importance in which learning-by-doing is a source to the application of skills within enterprises.

Thus, as a conclusion to this section I have attempted to substantiate the claim that there are a number of sources to the flow of skills but that these sources can basically be reduced to four distinct components. These are:

- formal education,
- formal skills training,
- the accumulated experience of workers and
- learning-by-doing.

The flow in which skills are acquired can include either of these four components or a combination of two or more specific elements to them.

3.6 Conclusion

The substantive literature that has been written on the different facets which constitute skill, qualitative insights and qualifications into the subject matter, does not fundamentally challenge or refute the four components to the sources of skill that has been formulated in the preceding section of this chapter. Since it is denuded of unnecessary trappings, and presented in its simplest and most elegant form, these four components and sources to the formation of skill will permeate the conception to skills formation which the thesis upholds. This thesis devotes significant attention and analysis to skill formation and its coordination at the workplace. It is signified institutionally through skills formation in enterprises and firms. The four sources to the composition skill that this thesis therefore upholds are the following:

- Skill acquired through formal education and the qualifications that are awarded to its incumbents.
- Skills acquired through formal skills training both on- and off-the-job. Formally, skills training typically leads to the award of certification and some level of accreditation to its incumbents.
- Skill acquired through the accumulation of work experience by workers in both their current and preceding jobs. Such experience is often more sensitive to the tacit dimension of quality within skill.
- Skill acquired through learning-by-doing. Trouble-shooting and the diagnostics of problems not encountered before elevates the learning curve that the engineers, technicians and artisans and perhaps even other categories of workers who hold skill undergo. Learning-by-doing enables one to discover the solution to a problem or error. The skill acquired through learning-by-doing is invaluable and advances the aggregate skill composition and skill accumulation in an enterprise or firm. These can potentially be diffused with spin-offs at the meso-level of the industry or sector where learning-by-doing in firms is the norm.

Chapter 4: The Sociological Understanding of Coordination

4.1 Introduction

The concept of coordination occupies a prominent place in this thesis. It is the basis of an historical and contemporary analysis of enterprise skills development in South Africa, especially of the new skills dispensation which was formally instituted after 1998. While this chapter will show that there are multiple perspectives to the concept of coordination, it may be helpful to establish a general understanding about the meaning of coordination. Frances, Levačić, Mitchell and Thompson (1991) deploy a definition that captures the gist of its meaning. They write:

‘Coordination implies the bringing into a relationship otherwise disparate activities or events. Tasks and efforts can be made compatible by coordinating them. Bottlenecks and disjunctures can be eliminated, so coordination is usually discussed under a sign of efficiency. By coordinating a set of items something can be achieved which otherwise would not be. It is the positive performance consequences of coordination that makes it such an attractive social practice and objective. Various agents and agencies can be ‘ordered’, ‘balanced’, ‘brought into equilibrium’, and the like, by the act of coordination. Without coordination these agents and agencies might all have different and potentially conflicting objectives resulting in chaos and inefficiency’ Frances, Levačić, Mitchell and Thompson (1991: 3)

This chapter explores the multiple meanings of coordination. The unfolding of these meanings occurred largely outside the disciplinary field of sociology. This chapter provides broad brush strokes to make sense and perhaps incorporate useful perspectives on coordination, into sociological theory.

The concept of coordination is pervasive. It is spread across multiple organisational and disciplinary fields. These include: physics, economics, computer and information science, linguistics, public administration, organisational studies and comparative politics. While pervasive, the concept is seldom theoretically defined in its fields of application. Instead a colloquialism pervades the use of the concept – a colloquialism often induced by contingent practice.

Correspondingly, the study of coordination has almost no theoretical body of coherent concepts in the disciplinary field of sociology. As studies and conceptions related to coordination began to permeate disciplines and fields in which it gradually became established (particularly economics, computer and information science, policy studies etc.), the problem of social integration (exhibited through the work of Talcott Parsons) and later systems integration (advanced by David Lockwood) occupied a more central place within sociological theory (Parsons, 1951 & 1960; Lockwood, 1964). Parsons with Smelser also undertook a study postulating a closer integration between economic and social theory (Parsons & Smelser, 1957). With the exception of sporadic and mainly empirically directed work (e.g. Winthrop, 1963; Warren, 1973 and Aiken et. al., 1975), which sociologists tackled within the sphere of service delivery, these efforts did not translate into further substantial theoretical work within sociology. Instead, there was a catalyst for explorations of coordination within disciplines bordering sociology. These studies gave prominent attention to inter-organizational and inter-institutional relations (and inter-organisational and inter-institutional coordination). The disciplinary source to these efforts was policy studies in social work and health as well as organizational studies (where enterprises were examined) and comparative politics. In comparative politics the systemic classification of different types or varieties of capitalism was also postulated.

The coalescence of these emergent investigations eventually found its locus mainly, but not exclusively in organisational and management studies. Sociology merely became one of several competing branches (e.g. sociology, organisational and management studies). It explored aspects of coordination tied to inter-organisational relations. At the inception, even though these competing disciplines possessed modest credentials to rigorously advance studies into coordination, compared to sociology, its concerns with coordination was taken forward, whereas in sociology there was general neglect and this contributed to gradual retardation.

As has been argued, research investigations exploring either empirical or theoretical dimensions to coordination have generally proceeded outside the disciplinary arena of sociology. This literature is important because it mimics the coordination of dependencies and interdependencies in society at large, overtly but more often through non-visible coordination (Al-Ani et. al. 2008; Amrit et.al. n.d., Findler & Malyankar, 2000; Gomez-Sanz-Pavon, 2006; Reimers, 2000; Raposo et.al., 2001; Raposo & Fuks, 2007; Kim, 1994). A

closer symbiotic relationship between coordination in the sphere of computer science, information technology as well as artificial intelligence and manufacturing and organisational process design is advanced by researchers who classify their work as coordination theory (Malone, 2004; Malone & Crowston, 1991; Malone & Crowston, 1994; Crowston, 1997 & Van Fenema et.al., 2004). While these theorists highlight the interdisciplinary character of coordination theory, the approach has a strong production and output-driven orientation, which circumscribes it being applied mainly to situations involving intricate dynamics between individuals and groups.

In the discipline of Economics, Austrian-School aligned theorists in particular have studied coordination in relation to price, markets and the allocation and adjustment of resources (Hayek, 1948; O'Driscoll, 1977; Hutt, 1978). Leijonhufvud (1981), a heterodox and left-leaning economist has also explored the relationship between information and coordination in macroeconomic theory. While extremely insightful the concept of coordination which the above theorists advance has been somewhat narrow and specialised. This limits its direct application for the coordination of skill formation.

A more explicitly organisation or institutional based theory of coordination is more appropriate for the purpose of understanding the coordination of enterprise skill formation. Here, a choice literally exists between two different perspectives: a neo-institutionalist perspective versus a perspective that places greater emphasis on inter-organisational relationships and collaboration. The prominence of strong representation for each perspective in the literature encouraged my gravitation towards working with a perspective that favours greater inter-organisational coordination. It appeared to me that neo-institutionalism is more entrenched in research within political science and to a lesser degree in sociology. This was particularly evident in perusing the prominent neo-institutionalist research programme at the Public Management Institute at the Catholic University of Leuven in Belgium (Beuselink, 2008; Dan, 2013).

But the sheer bulk of these investigations have become so pervasive, it is almost impossible for sociologists that pass by to make any sense of this landscape and terrain without resorting to sense-making conventions that are specific to the sociological enterprise. Here Robert Merton's (1967) notion of 'middle range theory' seems quite apt and is a start to formulate a stratagem to sociologically frame discussion of coordination. In addition to Merton three

inter-organisational coordination texts in particular (Chisholm, 1989; Rogers, Whetten & Associates, 1982 & Alexander, 1995), informed my theoretical framing of coordination. Because Chisholm's (1989) was deeply grounded in participant observation research, and while thoroughly informative about the dynamics of informal structures to inter-organisational coordination, it was not possible to imitate and apply this approach to my own research. The contribution by Rogers, Whetten and Associates (1982) provide exploratory insights into different aspects of coordination which have points of intersection but do not necessarily share a common framework. Ernest Alexander (1995) provides the most comprehensive analysis of inter-organisational coordination and it is extremely useful in providing almost the full ingredients to the formulation of a framework through which the coordination of the supply of enterprise skills in South Africa can be examined.

4.2 Sociological Understanding of Coordination: Possible Suggestions from Middle Range Theory

The understanding of coordination and its empirical application to the social world appears chaotic. To make sociological sense of this process, a sociological theory of the middle range is helpful. As Merton avers, a theory of the middle range lies between minor working hypotheses necessary for day to day research and an inclusive systematic effort to develop a unified theory (Merton, 1967: 39). There are a host of working hypotheses on coordination (as will be illustrated further in this chapter) but there is certainly no consensus on a unified theory. Merton suggested that within sociological theory a middle range theory which incorporated elements of social structure is more logical than concrete historical descriptions of particular social systems (Merton, 1967: 44). Merton coincidentally identified the 'interdependence of social institutions' (Merton, 1967: 51) as a space tailor-made for study using the concept of coordination. It was Merton's contention that an approach which evolved a theory by deriving hypotheses which could be empirically demonstrated represented a more fertile approach within the discipline. It extended from micro to macro theory (Merton, 1967: 64). These however remained no more than suggestions which future sociologists could deploy. The merit of Merton's work is in being able to imagine that it is indeed possible to apply middle range theory across the micro-, meso- and macro- levels in order to enhance our understanding of new theoretical challenges such as 'coordination'.

Success in carrying this quest through would indeed make it possible to expand our understanding of coordination viewed through a sociological lense.

The discussion of the idea of coordination in physics, social work and economics that occurred roughly in the early and mid-twentieth century, serves as a mirror to contemporary discussions of coordination in the first two decades of the twenty-first century. Physics, social work and economics – although still addressing the idea of coordination – also competed against a host of new disciplines which have appropriated these spaces and established stronger linkages with social structures and system functionalities. While the subjects are different, the pattern is almost the same. Instead of it being only physics, social work and economics, the new disciplinary voices explicating and advancing ideas and influence through coordination are now computer science and information systems, management science and organisational theory as well as public administration and comparative politics. Sociology unfortunately got left behind.

Before attempting to explicate a more sociologically informed conception of coordination, one can derive significant insight from reviewing attempts that have been made historically to understand coordination either conceptually or practically. It signals possible leads one can explore to enhance its ideas further as an explanatory tool, especially when these have relevance to enriching conceptual understanding and practical application of the concept. Moreover when these potential conceptual and explanatory instruments are shown, it provides a credible stock-take about potential sociological insights which may be gleaned from such an exercise.

4.3 Early Twentieth Century Attempts at Theorising Coordination: Precursors to Contemporary Thinking

The notion of coordination has a unique 20th century lineage but this is not always apparent in contemporary accounts. Part of the lineage to coordination, has influenced the way in which the coordination of enterprise skill has been posed⁶. In the work of Hayek for instance, the price mechanism generates a spontaneous coordinating function because it provides

⁶ Ideas from the socialist calculation debate as well as debates on the construction of the welfare state which was quite prominent in Sweden and the United Kingdom are obvious influences to coordination. See Boettke (2001).

individuals with subjective knowledge which they in turn use as a guide to navigate competitive processes (Hayek, 1949; O'Driscoll, 1997). There were also elements stimulated by the social dimension to the debate (e.g. G.D.H. Cole) that appeared to hold little continuity and were discarded and forgotten with time but still holds abiding relevance to conceptions of coordination⁷. By partially retracing these forgotten steps, extremely valid sociological insights into the problem of coordination will be presented. This will become apparent when I contrast and review perspectives relevant to the coordination of enterprise skills formation.

4.3.1 Associational Coordination and the Organisational State: A Precursor to Macro Coordination

Discussion of coordination in economic and social theory usually has its starting point in either macro or micro problems. Seldom are both the macro and the micro problems confronted simultaneously. In the adumbration of macro problems, the state as an organ of coordination is given a lot of attention. Similarly, micro coordination is important at an enterprise level. The following discussion traces these earlier roots of coordination in political economy but we can already observe through the work of Myrdal, gravitation towards thematic macro discussions of coordination. Subsequently, its standard bearers become economic history (through the work of Douglas North) and comparative politics (Peter Hall and J. Rogers Hollingsworth being leading theorists).

In his book, *Social Theory*, published in 1920, the prominent English intellectual and Fabian socialist G.D.H. Cole argued that the state bore an increasingly important coordination function through legislative interventions around social protection, the regulation of sectional interests in the economic sphere as well as through the provision of public services (e.g. through the Post Office and railway services). This expansion in coordination was made necessary through the complex and at times competing self-interest and functional associations which constituted society. As Cole notes:

‘...the State of today possesses increasingly important activities of coordination. It is largely concerned in adjusting the relations between association and association, or between other associations or institutions and itself. It enacts laws regulating the form and scope of associative activity, friendly society law, law affecting banks, companies, partnerships, Trade Unions, clubs, associations of any and every sort. In

⁷ Paul Hirst is one of the few recent theorists to have signified the pertinence and resurrected the writings of G.D.H. Cole. See: Paul Hirst (Ed.) (1989) *The Pluralist Theory of the State: selected writings of G.D.H. Cole, J.N. Figgis and H.J. Laski* (London: Routledge).

some degree, it regulates all religious associations, and, in some countries, the existence of an Established Church increases the extent of its religious intervention' (Cole, 1920: 88).

Cole's characterisation differentiated between coordination that involved the state itself as well as coordination that encompasses the state and society. The state was conceived as the principal coordinating mechanism to both. Common sense showed that this role as principal mechanism was indispensable to coordination involving the state and its institutions. Although the same postulate was held in respect of coordination involving the state and the associational institutions of society, this postulate was radically revised in the cauldron of practice since Cole's pronouncements.

The homage which posterity accords to the founders of innovative conceptions and ideas that have had an indelible influence on society's understanding of its social world is to associate the names of such founders with the popular impression which the idea assumes in everyday language. Thus, the invisible hand reminds us of Adam Smith, the class struggle which finally inaugurates the dictatorship of the proletariat resurrects the image of Marx, while the notion of embeddedness of social institutions in the economy is an imagery which belongs to Karl Polanyi. Surprisingly, we do not yet associate the concept of coordination with a major historical thinker. But if there is anyone whose conception accords strongly with the form in which coordination as a concept is starting to be used in the theoretical literature, the honour ought to be accorded to Gunnar Myrdal⁸, the famous Swedish political economist.

Myrdal's starting point was that the economies of developed countries had become increasingly regulated, organized, coordinated and planned (Myrdal, 1960: 11). He suggested that this did not occur overtly but gradually in a piece-meal fashion. Pragmatic, non-comprehensive national planning had thus acquired great importance. In Myrdal's view planning arises out of the need for the state and other collective bodies to coordinate public policies more rationally so that desirable ends that are determined by the evolving political process can be attained (Myrdal, 1960: 23). Referring to the historical evolution and the

⁸ Although Lars Magnusson (2004) makes a convincing case into similar Wicksellian roots that are an influence on both Myrdal and Hayek, their theoretical positions and political orientations are virulently in opposition. Ironically, although intellectually poles apart, they shared the Nobel Prize in Economics in 1973, the significance which did not go unnoticed to Magnusson. But Magnusson ignores the seminal and original formulation to social coordination which Myrdal develops particularly in his book *Beyond the Welfare State*.

institutional and political conditions that shaped planning in the Western democracies, Myrdal nonetheless warned that since planning tends to be pragmatic and piecemeal, it never is comprehensive and complete (Myrdal, 1960: 23). Myrdal further implied that pressure from vested interests reinforces policy intervention which is pragmatic and piecemeal (Myrdal, 1960: 24).

Myrdal contends that with the breakdown of competitive markets, a liberal non-interventionist stance would lead to the disorganisation of society. Faced with this problem, the state introduces regulatory measures which Myrdal refers to as a state-controlled infrastructure of collective organizations. This allowed Myrdal to formulate an argument for what he calls the organizational state. Exploring the evolution of the organizational state, Myrdal sees the pressures towards the dispersion of equity in society as a compulsion on the state to intervene by strengthening the bargaining power of weaker groups (Myrdal, 1960: 44). Thus state intervention distributes the concentration and misallocation of power. Intervention in markets is seen as an ameliorative to the disorganisation of society. On a national scale, power and organizational capacity allows buyers and sellers in a market ‘through elected officers and through appointed and salaried officials’, to ‘make binding agreements for all their members’ (Myrdal, 1960: 45). These binding agreements relate to wages, prices, entrance to professions or even the location, number and proprietorship of new businesses. Although the state initiates the process in the realignment of the balance of power, Myrdal is not beholden to the state. He sees the battle between equal but contending powers of competing organizations as a form of public policy (Myrdal, 1960: 46). The arrangement removes the direct participation of the state from the process. The state only guarantee that the organizations which are hence constitutionally drawn into public policy, adhere to open and democratic principles and are subject to the same fiduciary and public scrutiny which befalls other public organs (Myrdal, 1960: 46). In the organizational state, a large spectrum of approved policy is put into effect by organs other than those of the state administration (Myrdal, 1960: 46). Consequently, heightened importance rests on ensuring that national coordination between these organs occurs and it is therefore crucial that organizational differences are settled peacefully and efficiently. For this to succeed, the organizations have to be seen to promote the public will (Myrdal, 1960: 46).

Apart from the constitutional ambit of public policy, Myrdal argued that ‘private power groups organised to promote interests and common causes’ (Myrdal, 1960: 47), contribute to

public policy. This stems from the common causes that emerge out of group interests. The fact that they wield power of some sort, made it imperative to Myrdal, that they had to be incorporated into the institutional infrastructure of modern organised society. Even allowing that the idea of incorporation was characteristic more of the West European democracies, it was still a novel formulation. It was novel because it recognised that if given a platform, private power groups would have an impact on public policy purely on the basis of directing the power they wielded to serve a broader public interest (Myrdal, 1960: 47). Traditionally, state regulation of private power groups aimed to trim their power, with the intention of ensuring that the state became the final arbiter. Conceiving the expansion of intervening powers within markets in this manner, provides a justification for the state to expand its coordination of public policies in the national community (Myrdal, 1960: 48). As well as expanding the state's coordination function through its direct acts of interference in social and economic life, an expanded coordination function would apply equally to 'new and mushrooming growth of all those private organizations for collective action' (Myrdal, 1960: 48) that fall outside the domain of the state and outside its formal constitutional arrangements.

While putting a strenuous argument forward about its importance in regulating the market and social environment, Myrdal did not see this function as inexorable and fixed for perpetuity. In fact, a diminution of state regulation was possible and necessary (Myrdal, 1960: 91). A decrease in state intervention was perceived by Myrdal as a precondition to the strengthening of provincial and municipal self-government, as well as expanding the infrastructure of effective interest organizations. It furthermore presumed an intensification of citizens' participation and control (Myrdal, 1960: 93). It required 'a better educated public' making use of 'strong and efficient consumers' organizations', especially those representing the interests of buyers and consumers (Myrdal, 1960: 91). Thus Myrdal wrote:

'It is my conviction, however, that it should be possible to leave much more detailed regulations to be settled by the people themselves, in their local communities and through bargaining between organizations. This will promote the coming into being of a more cooperative national community, with more identification, solidarity, and participation on the part of the individual citizen, who will come to feel freer – and he actually will be more free' (Myrdal, 1960: 92).

Although written almost forty years apart, there are strong thematic overlaps in the work of G.D.H. Cole and Gunnar Myrdal. Both recognised the importance of the state as instrumental in establishing a wider coordinating authority. But both recognise equally the importance of other representative bodies making a contribution to social coordination. However, Myrdal moves beyond Cole. Myrdal argues that after the state has put into motion regulations which coordinate the activities of society, there needs to be a limit on the dominant position of the state. It has to retract and limit its role so that decentralized bodies and institutions have the space to work out the finer details.

Neither, the positions of Cole or Myrdal seems to have had influence and continuity with practical concerns conceived and applied within local contexts in South Africa. Andre Kraak (2009) for instance invokes conceptions of coordination formulated by historical institutional theorists who distinguish between different varieties or types of capitalism. Kraak first used the concept of coordination in insightful doctoral work. But Kraak used a relatively loose concept of coordination borrowed from a 1988 article by Finegold and Soskice published in the *Oxford Review of Economic Policy*. There Finegold and Soskice advanced the argument that the UK labour market was trapped in a low skilled equilibrium, had enterprises with poorly trained managers and a labour force which largely produced low quality goods and services (Finegold and Soskice, 1988: 22). They argued further that a self-reinforcing network of societal and state institutions in the UK worked to perpetuate conditions of low skill equilibrium. The term ‘uncoordinated’ was extensively applied to characterise the education and training regime in the UK. Elements contributing to ‘un-coordination’ were identified as weak state implementation, the concentration of manufacturing firms in low skill continuous manufacturing instead of more skilled batch or unit production processes, the overbearing prominence of accounting as a managerial control tool instead of production management as a system of organization. Finally, Finegold and Soskice critiqued a UK industrial relations milieu which largely undermined attempts to improve the skills of the workforce and overlooked joint cooperation between employers, unions and government to coordinate national training policy (Finegold & Soskice, 1988: 29).

In 1999, Finegold and Culpepper edited a book containing articles on the *German Skills Machine*⁹. At about the same period, a new literature began to evolve among those in the

⁹ The book contains an institutional analysis of the German skills system.

circle of Finegold and Culpepper. This literature was on the notion of different varieties of capitalism and the principal fissure was shown between liberal market economies and non-liberal or coordinated market economies. A more mature consolidation of the status of the varieties of capitalism was later assembled by Peter Hall and David Soskice (Hall & Soskice, 2001).

These conceptions of coordination that flow through the earlier work of Kraak as well as his most recent work (Kraak, 2009) emphasised the relevance of coordination to policy making. From a much earlier period, starting in the 1940s, there was however an interesting line of practical research conducted in South Africa on coordination. Like the work of Myrdal in Sweden it represented a trend which was to continue but mainly in the United States and in the field of coordination around planning and service delivery (Winthrop, 1963; Warren, 1973 and Aiken et.al. 1975).

Here, the uniquely institutional and geographically specific work of Edward Batson (1940), the first professor and head of the department of Sociology at the University of Cape Town, deserves greater prominence and recognition. Even by modern day criteria, Batson's arguments were ingenious and were directed to the condition, organisation and coordination of social work then prevailing in South Africa. Social work was conceived by Batson as an instrument to coordinate activities of different charitable and rehabilitating organisations so that these could be aligned for the betterment of society (Batson, 1940: 119-120). Batson first proceeded by citing a range of examples of welfare and relief measures which a plethora of organizations performed. These were performed by organisations independent from the state, partially associated with the state or directly borne out of legal provisions that enabled them to serve as organs through which social work was practically realised in the country. He then proceeded to make a distinction between national and provincial administration versus local administration in the coordination which he referred to as 'the community-chest local-council social-service-exchange type' (Batson, 1940: 123-124). During roughly the same period, in the United States, the need to coordinate the work of private and public agencies in the public welfare sector gained prominence. In the context of these agencies becoming involved with direct payments, grants and other subsidies, discussion about the coordination of their activities became a concern (Rogers & Mulford, 1982: 37-40).

Starting with a generally broad and elementary definition of coordination as being ‘to bring into proper relation’ (Batson, 1940: 119), Batson’s definition was immersed in colloquialism. Nonetheless, Batson recognised the importance which coordination had for the emerging organisational and institutional formation then beginning to take shape within the field of social work in South Africa as well as internationally. Because these preliminary organisational and institutional formations required some level of intervention around social welfare administration – nationally and internationally – Batson suggested that the organisational unit capable of advancing these interventions could be coordinated in two ways: geographically and functionally (Batson, 1940: 124). Geographical coordination was designed for social welfare units that were dispersed locally, nationally or internationally. Functional coordination referred to social welfare units whose operations were bound by exclusive and specialised objectives and goals (e.g. child welfare). Batson was then able to apply these two ‘ways’ of coordination across a typology of six administrative types which he proposed. These six administrative types were cast from national and international initiatives in the sphere of administrative organisation then taking shape in the emerging social welfare field in the late 1930s. Batson’s typology showing the six types of administrative organisation is presented in Table 4.1.

Table 4.1: Batson’s Six Types of Administrative Organisation

Administrative Type	Nature	Examples	Extent in the Union
A	local, specialised	urban child welfare societies	752 of the 782 bodies listed by the Department of Social Welfare are local; the majority of these are unspecialised but may be affiliated to specialised national bodies
B	national, specialised	The National Council for Child Welfare	30 national bodies listed among the 782; 19 of the 30 more or less specialised functionally
C	international, specialised	The British Empire Service League	rare
D	local, functionally coordinated	urban co-ordinating councils	Despite the fact that much has been saidof the need for local co-ordination, only in a limited number of centres has such machinery come into being' [U.G. 15-1940]
E	national, functionally co-ordinated	The Federale Vroueraad	Nationally, there is no single private body representing social work interests as a whole' [U.G. 15-1940]
F	international, functionally co-ordinated	The Salvation Army	rare

Source: Batson, 1940: p.125

From his analysis of administrative organisational types within the emerging field of social welfare administration in which the intellectual discipline of social work had become

prominent Batson (1940: 129) suggested three principle methods of coordination which could be applied to any specific group of activities. He referred to these as: legal compulsion, administrative suasion and voluntary agreement. A provincial ordinance was an example of legal compulsion. The provision of grants, subsidies, recognition granted to participants in coordinating schemes by the state or coordinating bodies was an illustration of administrative suasion. Similarly affiliation to national bodies and membership of local boards, councils and registers allowed for voluntary agreement. Finally, as a conclusion to his argument, Batson issued the following advice concerning coordination:

‘Co-ordination by voluntary agreement may be the most difficult method to employ and the least stable in operation; I think its advantages in terms of goodwill and active, as distinct from passive, participation will nearly always outweigh these disadvantages. It also seems to offer the best guarantee against the special risks which co-ordinative machinery introduces into the social welfare system – the risks of monopoly and exclusiveness, of undue complexity of organization, of stagnation, of repressiveness, of bureaucracy. The question of guarding against the perversions, while securing the benefits, of co-ordination appears to me to be a more urgent question than that of supporting or opposing co-ordination *per se*’ (Batson, 1940: 130)

The merit in Batson’s conception of coordination was its practical orientation and the elevation which it accorded to organisational and institutional structures and units within a process of coordination. Although his analysis was tailored to advance the programme and process of social work and social welfare administration, it represented an original blending of structural organisational and institutional components into coordination which would have been attractive to those using a Mertonian framework that could be applied at a local, national and international level. However such a coalescence between theories of the middle range and the sociological engagement of Edward Batson did not lead to a framework to sociological engage with challenges which coordination as a process posed for sociologists.

4.4 Enterprise Coordination: An Exemplar of Micro Coordination

The discussion of micro-economic coordination will be concerned with the coordination of specific functional activities in the enterprise. The enterprise or the firm is probably also the most important institution of economic reproduction within society. The literature that is reviewed gives a slant mainly to the difficulties and problems which managers and

entrepreneurs confront with respect to coordinating commodity production at the enterprise level.

There is generally a dearth of contemporary sociological and even economic writing for that matter, which directly addresses problems of economic coordination within enterprises. In a text which was written to debunk the notion that the tendentious economic laws as elaborated in the three volumes of *Capital* by Karl Marx, the authors of a two volume discussion entitled: *Marx's Capital and Capitalism Today* (MCCT) argued that the calculation which the owners and managers of enterprises undertook in contemporary capitalist firms shared little in common with the predicted tendencies of the capitalist system in the work of Karl Marx. Although reviewers were infuriated by the themes and conclusions¹⁰ which Antony Cutler, Barry Hindess, Paul Hirst and Athar Hussain reached, beyond a small coterie of supporters [e.g. Jim Tomlinson (1984) and the work of Peter Miller (2006; 2008) and Grahame Thompson (1982)], the themes which the authors attempted to address were largely ignored. The discourses that were in place to engage with the problems which Cutler, Hindess, Hirst and Hussain raised were outside the domain of sociological writing: in accounting, industrial management and the economics of valuation and taxation.

Written as a critique of what they refer to as the essentialist elements in the work of Marx, it addresses the conditions underpinning calculation, through which managers and owners of firms have to secure the viability and reproduction of enterprises. Shorn of the ideologically heated debates of the late 1970s, these concerns and difficulties encompass coordination of the production, management, financing and profitability of enterprises. These themes were also captured by Dorothy Wedderburn in the late 1960s. Although the examples are dated, they convey many of the problems of coordination which confront enterprises that are required to adapt to changing economic and social milieus, including milieus in which the coordination of the supply of enterprise skill formation is a more central concern.

Cutler, Hindess, Hirst and Hussain argue that mechanisation – either through equipment reconditioning and renewal or through the installation of new (and more advanced) equipment can aggravate ‘problems of unevenness in the production process’ (Cutler, et al.

¹⁰ See Michael Bleaney’s review in *Marxism Today* (September 1978) and that by Laurence Harris in *Economy and Society* (August 1978, vol7, no.3). As a reflection of the virulent left-academic climate then prevalent in the United Kingdom at the time, *Socialist Register* and *New Left Review* devoted special critiques against Barry Hindess and Paul Hirst respectively.

1978: 169). This is because different sections of the production process can have different production period outputs (i.e. the time the product takes to be completed in a particular phase of the new machinery cycle). Mechanisation of specific sections of the production process can therefore disrupt balances in production flow which can cause bottlenecks, particularly ones that result when the higher output volumes of the new machines outstrip the processing capacity of the remaining equipment (Cutler, et al. 1978: 170). Alternatively, newly mechanised sections that are not sufficiently integrated can operate at below optimal production capacity. Where either occurs, neither a saving in production time nor a saving in unit costs is possible. As they expressed it:

‘An integrated process may in fact only be integrated within a given range of output and certain pieces of equipment may be capable of more variation in output than others. Equally, running equipment at beyond optimal speeds leads to a risk of breakdowns or defective products whose cost impact is, ... magnified under conditions of high-volume output’ (Cutler, et al. 1978: 176)

Insufficient plant integration involving a situation where machines are misaligned can damage raw-materials or semi-processed goods, increase wear and tear on equipment and contribute to a situation which may appear to have got even worse after adjustments of new capital equipment investments. It would require ongoing calculations to reverse the situation with enterprise coordinating activities which gradually enable the managers and personnel at the enterprise or plant to learn to manage and operate the system with its new or revised configurations¹¹.

In engaging in calculative practice, managers of the enterprise usually perceive mechanisation as an important lever through which to ‘increase the integration of a production process’ (Cutler, et al. 1978: 164). While not stating it explicitly, coordination is seen by Cutler, Hindess, Hirst and Hussain as the accompanying but also post-calculative intervention by which integration of mechanisation is secured. Coordination means putting the differences between the old and the new machinery into alignment and it necessarily implies disruptions being either minimised or eliminated. As Cutler, Hindess, Hirst and Hussain expressed the challenge: ‘it is possible to arrange a series of operations in such a way

¹¹ See the fascinating account by Freeze (2007) in which the British textile firm, Courtaulds experimented and adapted Czechoslovak machine technology in one of its UK textile plants. The collaboration and learning between British technicians and Czech engineers however was put to an end by the 1969 Soviet invasion of Czechoslovakia.

that they can be coordinated with each other so that the minimum time period is spent on each' (Cutler, et al. 1978: 164).

The significance of the work of Cutler, Hindess, Hirst and Hussain is in the prominence which they accord to enterprise calculation as a continuous intervention to secure the viability and continuity of the enterprise as an organisational form. But calculation is only possible through specific discourses which recognises and addresses the problems which are at hand: from accounting and the determination of cost to the integration of the production process through mechanisation coupled with diagnoses and trouble-shooting to maintain an alignment of elements which make up the whole. Cutler, Hindess, Hirst and Hussain inadvertently stumbled across coordination as an accompanying intervention to calculation. The significance of this 'discovery' was not made explicit and has been left to the Austrian-school aligned economist Peter Boettke (2001), who has popularised calculation and coordination as processes that coexist and operate virtually in unison. Referring to the use of the concepts in his own work on the transition to socialism and on the process of its reversion to capitalism in Eastern Europe he writes:

'...advanced complex coordination requires that economic actors are able to utilize the tools of economic calculation provided by private property, market prices and profit and loss accounting' (Boettke, 2001: 4).

For Boettke, coordination and calculation take place in tandem. The arguments which Cutler, Hindess, Hirst and Hussain advanced forty years ago were and are still innovative and original. But the deeply charged theoretical debates in which they were involved, risked missing the pertinence of these arguments. A more practical rendition of case studies in enterprise coordination which confirms the positive contribution which the authors of MCCT made was provided earlier by Dorothy Wedderburn. In the concluding part to this section, this work by Dorothy Wedderburn will be considered in more detail.

For Wedderburn (1968: 10), enterprise planning is an important feature of an active manpower policy¹². The long-term goal of an active manpower policy is integration between public policy and policies and programmes within the enterprise so that it culminates into a

¹² In the period in which Wedderburn wrote, the term 'active manpower policy' was unusual and a progressive advance in the literature. Today, the term 'manpower' has been supplemented by 'labour', hence our contemporary designation of the notion: 'active labour market policy which is often abbreviated as ALMP.

single national system¹³. The logic of this integration is to ‘assure the optimum productive utilisation of a nation’s manpower resources’ (Wedderburn, 1968: 10). This assumes that the process will be coordinated but the enterprise is the foundation to the efforts at coordination. Coordination balances the effectiveness of the adjustment to change at the enterprise, particularly where it results in shifts and alternative employment with the expansion of new jobs which the adjustments bring about. ‘The public agencies and policies usually supplement and complement these enterprise programmes and take on the responsibilities which enterprises are unable to do or do not perform adequately’ (Wedderburn: 1968: 10). Although the importance of flexibility is acknowledged as an important criterion, coordination is less about improvisation and more about bringing about an organisational impact over the long-term. For instance, when confronted with having to make adjustments to technical change in the enterprise, Wedderburn (1968: 10) recognises the critical importance of assembling up to date information. Furthermore, adjustment to technical change in the enterprise is not possible without consultation and participation of employees. Wedderburn (1968) identifies three major factors which have a bearing on the technical changes that take place at the enterprise level. These are:

- Change in the nature of the product or the scale of output;
- Change in the inputs of capital or labour;
- Change in the administration of the inputs (i.e. inputs of capital or labour).

As a caveat to these three factors, Wedderburn warns that the actual changes do not occur as neatly as the factors suggest (Wedderburn, 1968: 28-29).

Production reorganization, as well as product characteristics, influence the maintenance requirements of the labour force which is clearly shown in the example that Wedderburn draws from the rail industry:

‘The replacement of steam by diesel locomotives and of wooden wagons by steel wagons, both of which require less maintenance, has coincided with a falling off in the demand for new engines and wagons because of reduced rail traffic. Moreover diesel locomotives require less manpower to operate them’ (Wedderburn, 1968: 29)

¹³ The manner of Wedderburn’s formulation certainly enables us to establish an association between her work and that of Gunnar Myrdal, although I am not sure if she or Myrdal was aware of this.

Wedderburn (1968, chapter 6) shows that the condition where labour force reductions occur generates coordination pressures within enterprises. Labour force reductions become pronounced when the existing labour force is greater than manning requirements of the enterprise. It can be caused by falling demand for labour or increases in productivity that contributes to redundant labour. Many enterprises coordinate their labour force reductions through attrition (e.g. resignations, retirements and death). Enterprises with a seniority policy can achieve reduction in the form of retirements and it is achieved at a massive cost advantage because younger workers who are eventually employed to take up jobs vacated by older workers would earn lower wages for the same jobs as that vacated by the retirees. But even where the principle of seniority is upheld, coordination challenges could become manifest. A United States Oil company which adhered to a policy in which seniority was favoured discovered that it was left with 'disproportionate number of maintenance workers because senior employees traditionally sought such jobs, in order to avoid the shift work involved in process operations' (Wedderburn, 1968: 73).

In the 1960s, while it was still uncommon for excess labour requirements to be coordinated through the reduction of normal working hours, the same principle was subverted with respect to the reduction of overtime. Thus, enterprises commonly reduced the working of overtime in order to mitigate surplus labour requirements. Transfers across firms which were in close proximity was in some instances carried out (e.g. Wedderburn cites this occurring at a Swedish shipyard, an Austrian rolling mill and among Norwegian chemical firms) (Wedderburn, 1968: 66). The task of embarking on measures of coordination could even impact on dismissal policies. These included a number of measures (e.g. early warning of impending retrenchments, upholding seniority by letting go of younger workers, providing search assistance in finding jobs elsewhere on the labour market, or even upholding and protecting breadwinner jobs etc.). A policy protecting breadwinner jobs could imply that the wives of married couples at the enterprise could be dismissed (or made redundant) in order to protect more male and breadwinner jobs (Wedderburn, 1968: 69).

Enterprise coordination is not however solely confined to addressing the problem of technical change and labour reduction. It is equally applicable to new plants, where incentives are necessary to ensure a 'par' level of output is attained. As Wedderburn notes, this works when workers reach the maximum output as quickly as possible and without 'over-valuing the new jobs in relation to existing ones' (Wedderburn, 1968: 82). Workers are an important element

to enterprise coordination. In this instance, finding an acceptable piece-rate system – to both workers and management – may be construed as an essentially industrial relations problem. Even where the specific piece rates have been shaped by job-evaluation mechanisms, the fine line between the wage costs which the company is able to support versus both overt (e.g. strikes) and covert opposition from workers (e.g. absenteeism, turnover) demonstrates the importance of coordinating problems. Without resolution these have the potential of scuttling the viability of an enterprise.

Cutler, Hindess, Hirst and Hussain on the one side and Dorothy Wedderburn on the other share a strong common trait: both give detailed glimpses of the enterprise and the organizational problems it encounters in order to survive. In Wedderburn's case enterprise planning becomes incorporated into the organizational architecture of firms. As important as it is, enterprise planning becomes subsumed under coordination. Wedderburn is thus a strong advocate of coordination as the process which facilitates both technical, productivity and labour force change within the enterprise. In the work of Cutler, Hindess, Hirst and Hussain, coordination holds a weaker influence. In their work, calculation is given elevated importance. Calculation is conceived as a practice which invokes all cunning and reason. Where calculation invokes reason, the most appropriate discourses in terms of the context and the problems it ruptures are deployed to navigate solutions. But enterprise calculation is concerned with integrating the elements that make up the whole. Coordination is the process which secures the success of integration. While Wedderburn gives coordination a strong influence, even subsuming enterprise planning under the ambit of coordination, Cutler, Hindess, Hirst and Hussain give it a weak influence where coordination is the result of a success. This distinction has significance and will be explored in more depth in the chapters discussing skills levy policy which has a bearing on the present skill formation processes as these have been conceived in this thesis.

4.5 Conceiving Skills Regimes through Macro Coordination

Aside from the debates on planning involving Austrian economists and socialists in the 1920s and 1930s or debates about the role of the state in market economies which pitted Austrian economists against Swedish economists soon after, the modern usage of the concept

coordination has closer affinity to a paradigm of systems integration (Omicini & Papadopoulos, 2001: 103).

In this section to our discussion of coordination, consideration is given to the problem of exercising coordination of the vocational education and training system – in short the skills formation system – in the traditionally advanced social democratic countries. First, since the structure of the labour market within these countries exhibit noticeable differences and second, since these labour market structures have experienced institutional pressures to accommodate ongoing change, the literature in general has designated the different types of social democratic market systems as *coordinated market economies*. This appellation has been contrasted with that of either business or market centred (e.g. the United States and Britain) labour market configurations, which have in general been referred to as *liberal market economies*. In contrast, examples of coordinated market economies are: Sweden, Germany, Japan and Norway.

Quite a significant proportion of the contemporary literature which discusses coordinated market economies tends to be written from the perspective of an academic orientation that is referred to as the *varieties of capitalism* (VOC) approach. The writers who adopt the VOC perspective (see the papers in Hall & Soskice, 2001) distinguish themselves from previous analyses which viewed the outcomes in coordination as either the result of institutional inertia or the product of compacts between employers and trade unions carried out in the name of corporatism. But even when corporatism was identified, the power of trade unions and struggles by workers from below was invoked as a key factor in forcing compromise from employers. The presumption was that if employers had the freedom they would revert to uncoordinated systems. But there is a strong tendency within the VOC perspective of putting the onus of coordination onto employers. VOC recognises different axes of employers. These axes can be multiple and differentiates large from small employers, they can be industry or sector specific (e.g. metal and engineering sector and industries) or they can contain broader sectoral dimensions (e.g. export oriented versus non-export oriented sectors).

The central question which concerns us is how coordination is conceived in the literature on the varieties of capitalism. Considered purely on the presentation of theoretical arguments, VOC borrows concepts from empirical contexts and applications without giving it formal

status (Höpner, 2007)¹⁴. To a degree VOC mirrors cameralism¹⁵. It is able to map the detailed interests which constitute institutional life and its trajectory. It actually shuns formalization for detailed historical and empirical analysis.

VOC proposes going beyond corporatism as the collusion of two powerful interests that ensure stabilisation of the system. Instead VOC assigns credit to groups for coordinating among themselves to achieve joint gains (Thelen & Kume, 2006: 12). These differences are expressed in different clusters of institutions. By doing this, VOC actually posits the notion of comparative institutional advantage and subtly avoids imputing institutional change exclusively to neo-liberalism. Consequently, VOC attempts to understand the advantage which employers in coordinated market economies derive from regulated and coordinated institutional configurations. For example, Thelen and Kume (2006: 13) believe that the emphasis which VOC theories give to the continuing interests of employers as a reason for the preservation of existing institutional arrangements is significantly better than explanations which impute either institutional inertia or union defence as reasons for continuity. It leads them to adopt a more dynamic conception of coordination which they see as constantly being assembled and adapted:

‘Rather than thinking of coordination as a “thing” or “state of affairs” that whole countries either have or do not have, we think it is much more useful to conceive of coordination as a political process and something that is not at all self-sustaining but in fact has to be constantly nurtured and ‘patched up’, and sometime renegotiated entirely’ (Thelen & Kume, 2006: 14)

This is an important point which the detailed institutional overviews and studies (e.g. Bowman, 2005 and Thelen & Kume 2006) of coordination in coordinated or non-liberal market economies have tried to demonstrate. Borrowing the notion of ‘beneficial constraints’ from Wolfgang Streek, Bussemeyer and Trampusch (2012: 7) suggest that ‘the dense network

¹⁴ Höpner (2007) argues that in addition to the concept of coordination, there is great value for VOC to borrow the concept of organization from Andrew Shonfield the author of *Modern Capitalism: the changing balance of public and private power* (1965&1969) and using it in tandem with coordination.

¹⁵ *Cameralism* was a system of public economic management that prevailed in the 18th century and was strong in Prussia and among the German principalities. Referring to the historical and institutional roots of German and American political theory, Van Meerhaeghe notes that ‘German political theory is primarily collectivist; American political theory is essentially individualistic’ (Van Meerhaeghe, 2011: 146). He quotes the pioneer American sociologist Albion Small on the cameralists who wrote: ‘To understand modern Germany ... it is necessary to take account not only of present activities in Germany, but those formative purposes and tentative institutions which the cameralists represented’ (Small cited in Van Meerhaeghe, 2011: 146). Similarly Van Meerhaeghe cites Werner Sombart who wrote in the aftermath of the German hyperinflation that ‘a contemporary cameralism is necessary’ (Werner Sombart quoted in Van Meerhaeghe, 2011: 135).

of institutional constraints' in Germany 'imposes beneficial constraints on firms, encouraging them to invest in skills' (Busemeyer & Trampusch, 2012: 7).

A significant contribution to an institutional analysis framed around the problem of coordination was taken up in a book written by Thelen on how institutions evolved to create specific national comparative skill formation systems under different varieties of capitalism (Thelen, 2004). The analysis contrasted the historical and institutional formation of skill development systems in Germany, Britain, the United States and Japan. The object of her analysis was to trace the differences between plant-based training that emerged between coordinated market economies such as Germany and Japan and liberal market economies such as the United States and the United Kingdom. Plant-based training in Germany –the foundations of which were laid at the end of the 19th century – gave rise to an apprenticeship system which is imputed as an important factor in advancing Germany's industrial growth and development¹⁶. Deploying an overt comparative historical institutional analysis she sought to trace the contemporary differences between these coordinated and liberal market economies back to the nineteenth century (Thelen, 2004: 4-5). Thelen's analysis which is embedded in a strong historical institutionalist research programme, poses a serious question between the visible continuities in industrial training or skill formation systems which her comparative analysis supports versus the massive discontinuities which the South African evidence apparently posits. This is especially evident in respect of the changes to national skill development strategies which occurred after 1994.

Thelen's insights will be used to help draw lessons of the South African experience to skill formation, especially in respect of institutional reforms that have occurred in the coordinated market economies. Perhaps the most important insight is that coordination problems in these economies tend to be resolved through non-market mechanisms, a point which Myrdal for instance made five decades earlier.

¹⁶ While the dual apprenticeship system which is represented through the fusion of workplace training and school-based theoretical instruction epitomises the strengths of the German skill formation system, Bowman cautions that the parallel continuing education system in Germany (especially for adults wishing to retrain and renew their skills) is institutionally chaotic, 'more jungle than a system and characterised by the low quality of training offers, the lack of transparency in the training market, and uneven access to further training' (Bowman, 2005: 572-573. Also see Hummelsheim & Timmerman (2000: 47).

4.6 Coordination and the Importance of Interdependencies

Malone and Crowston (1991; 1994) have attempted to formulate a theory of coordination which draws from organizational theory. Malone and Crowston (1991: 3) define coordination in terms of how actors work together¹⁷. But they warn that coordination theory does not attempt to analyse everything in complex systems. Coordination theory ‘focuses only on the goal-directed processes of coordination’ (Malone & Crowston, 1991: 4). While they allow a broad definition of coordination as encompassing the act of working together, Malone and Crowston advance a narrower but more systematic definition of coordination as the act of managing interdependencies between activities (Malone & Crowston, 1991: 12). These interdependencies can be pooled, sequential or reciprocal. The coordination process involves goal selection and goal decomposition. In a world where multiple activities exert pressure on limited resources, attracting and allocating resources feature prominently in coordination theory. Giving content to the practical problem of engaging in activities at the right time and with the right resources gives rise to problems of sequencing and synchronization.

The research which Malone and Crowston (1991; 1994 & Crowston, 1997) undertook has been extended by a host of other theorists. A recent paper by Van Fenema, Pentland and Kumar (2004) presented a number of useful insights into where coordination theory is headed. One paradigm which they refer to is the contingency paradigm. In the contingency paradigm, organizations are shown to apply substitutable mechanisms to deal with task dependencies. The selection process matches information processing needs with appropriate capacities (Van Fenema, Pentland & Kumar, 2004: 4). Confirming an association between cybernetics (Wiener, 1954) and systems theory (Bertalanffy, 1968), contingency theory attempts to account for vulnerability and uncertainty. Uncertainty increases the need for information processing. Coordination is heightened in complex environments which are confronted by task variability. Task variability dictates the amount of information processing that is needed. Furthermore, the information at hand is often elusive to obtain and when obtained contains ambiguities. Often it cannot be verified under the constraints requiring decisions to be made. This raises the problem of task analysability. Task analysability tends

¹⁷ Within organizational theory, actors are conceived in the couplet: principal-agent. Agents are the actors that manage the possession and assets of their principals.

to paralyse the most effective response. A typology of dependencies was sharpened through models of physical workflows: sequential and reciprocal. This was later extended to team interdependent workflows. Each of these situations contain fundamental shifts in complexity resulting in greater difficulty of attaining delivery goals coupled with a rise in the costs of coordination.

The analogy between coordination and transaction cost appears to feature prominently in the theory which Malone and Crowston advance. Changes to the staffing of information technology institutions for instance have been attributed to pressures to reduce the coordination costs towards more intensive structures. In such organizations, the traditional overseeing role which managers traditionally occupied is reassigned to lower ranking senior clerical staff. Where this occurs, managers not able to assume more knowledge intensive but information technology roles in the organization would certainly face redundancy. It has been suggested that the reduction in coordination costs – particularly in information technology intensive firms – leads to smaller less vertically integrated firms (e.g. travel agencies operating as separate firms doing online reservations have largely reduced this function within airlines). In this example, the process of the reduction in agency costs was shown to contribute to more decentralization. However, where pressure is exerted for a reduction in the costs of information crucial to shape decisions in organizations, the trend would be in the opposite direction. Thus, the shift would be for greater coordination in the flows of such information ensuring that it flows before expiry to the deadline into a centralised pool where it is consolidated for wider use within the organization or its systems (e.g. as occurs with the economic indicator data that is released periodically by Statistics South Africa).

The analysis which draws heavily on the disciplinary concerns of organizational theory illustrates the effort that has gone into advancing the theory of coordination and its applications.

4.7 A Sociological Stock-Take and Framework for Coordination

Considering the rather extensive but seemingly incomprehensible manner in which the idea of coordination is haphazardly applied to empirical situations, there is a lot of merit to build on Merton's earlier postulates. Merton favoured a structural application of these. Free from preconceptions of grandeur, a structural application of the middle range which addresses the chaotic empirical applications of coordination can make a distinction between the micro and the macro. Thus micro-level coordination can be differentiated from macro-level coordination. We can also insert a level to coordination which is not purely at the micro-level neither is it purely at the macro level. For want of a better word this can be referred to as meso-level coordination.

In general terms macro-level coordination corresponds to the coordination of multi-organisations and institutions. It may also have affinity to a wider system of coordination. Micro-level coordination certainly has a closer semblance to the coordination of single entities: these can include both people and organisations. Meso level coordination invokes affinity with more complex organisational and institutional forms, but which are nonetheless still less complex than the organisational and institutional forms which would exist at a macro-level. One can impute coordination involving strong inter-organisational relationships as a form of meso-coordination. All levels of coordination, macro-, meso and micro- are subjected to the influence of complexity and scale. Scale can be national, regional or sectoral and even local¹⁸.

In addition as Steven Brint (1994) suggests, the different levels at which coordination is exercised ought also to be imposed on different sectors which encompass the profit sector of firms and enterprises, the state sector as well as the non-profit sector. All of these sectors embody different levels through which specific policies, programmes and events are coordinated. These can often overlap. The consequence is that different interests attached to these different sectors can come into conflict. Although referring to the American context, it is applicable to different country contexts including South Africa and there is some worth in quoting Brint (1994) in more detail:

¹⁸ Johann Maree periodically reminded me about this point in our numerous conversations.

‘In all the advanced societies, the market is the economic tool and the private sector is the employer of first resort. In general, professions involved in the spheres of business services and applied technology are organised as private sector activities.

‘In theory, the state takes over only those activities where the market cannot be trusted to generate meaningful prices or adequate levels of provision. These include activities that cannot be parcelled out in discrete units to individual consumers (e.g. defence and public health regulation), that are necessary to control economic externalities (e.g. environmental regulation), and in other instances where the interest of the entire society are involved (e.g. historically, the provision of free public education through adolescence). Consequently, professions primarily involved in the provision of large-scale collective goods, such as legal administration, civic planning, mass transportation, utilities, education, social welfare, and national security are organized primarily as public sector activities.

‘The American economy also includes a relatively large third sector (representing over 5 percent of the national income and more than 9 percent of total paid and volunteer employment). This non-profit sector is enormously heterogeneous. The organizations in the non-profit economy cannot distribute profits to members or shareholders and are eligible for a variety of tax advantages and public subsidies, ranging from exclusion from income tax obligations, reduced postage rates, free public service advertising on radio and television, and in many places, exemption from local property and sales taxes.

‘In theory, non-profits are expected to respond to “the diversity of demands for public goods”. Government provides collective goods for the majority, and non-profits for “the under-satisfied”. They provide collective commodities – education, charitable aid and comfort, research, culture, valued training, or membership benefits – either for a minority of the population, or above the minimum provided by government. Non-profit status turns on making a persuasive argument that market provision is dangerous or unsatisfactory to the society’.(Brint, 1994: 60-61)

Building on Brint’s apt description of the diversity of sectors to the American economy, which he classifies respectively as a profit sector, a state sector and a non-profit sector, there is convenience in applying this three-fold typology, by making the necessary amendments required, to the South African context. I will use the same designation that Brint (1994) uses to distinguish between the profit-sector and the state-sector. Brint however refers to the non-profit sector as an economy (see third paragraph to the above quotation from Brint) which does not distribute profits to its members. A similar qualification is appropriate to the existence of the non-profit sector in South Africa. This occurred during the period of United Party rule (before 1948) when Afrikaner nationalists established a strong presence in this sector. It was also a strategy to mobilise the Afrikaner population on specific issues such as language of instruction in schools (see Malherbe, 1981) as well as to mobilise the poor White population. In the period of NP rule, the anti-apartheid opposition cultivated a strong

presence in this non-profit sector. The presence of a radical socialist opposition in this sector was often blurred by the strong presence of liberal anti-apartheid organisations which existed alongside. To emphasise the strong institutional building orientation of this sector to a non-racial democratic South Africa – in addition to acknowledging it as a non-profit sector – following Brint (1994) I occasionally also use term: social development economy as a reference to this sector.

Quite a large literature depicting the various permutations in the growth of the non-profit sector in the recent period has evolved (Woch, 1990; Anheier & Seibel, 1990) and various nomenclatures have been applied to it. While the terms that have been applied to characterise it include the voluntary sector, the nonprofit sector and the third sector, the blanket terms that I have used to designate the sector are either the technically correct designation of ‘non-profit sector’ or ‘non-profit organisations’ or my own preference of ‘the social development economy’ which incorporates NGOs, NPOs, and social entrepreneurship ventures etc.

The arena of public school-level education has also been distinctly marked first by the pioneering interventions of philanthropic and religious involvement in education through the non-profit sector. This involvement in education was led to greater state involvement albeit at first gradual. The state did not however abrogate the involvement of the non-profit sector in school-level education. Nor did it circumscribe private school level education or education provision that was neither undertaken by philanthropic or religious involvement nor education that was spearheaded by gradually increasing state involvement.

The insights of Ernest Alexander (1995) arguably provide the most compelling lense through which the micro-, meso- and macro- spheres of coordination can be systematically framed. It saves us the arduous task of trying to construct a framework from the disparate and multiple ways that coordination is conceived in the literature. The advantage of Alexander’s analysis is that it also provides a structural classification of coordination which is grounded in literature and case studies from the field.

A precondition for coordination in Alexander’s analysis is alignment towards implementation of organisations that potentially can contribute to coordination. Singularly or collectively, these organisations are required to act in unison for coordination to take place successfully.

Alexander refers to this process of organisations acting together to achieve designated results or outcomes as inter-organizational coordination. As he put it:

‘.. concerted action among organizations does not happen by chance. It is the result of inter-organizational coordination (IOC)’ (Alexander, 1995: xv).

Even in the sphere of government, interconnectedness between agencies means that there is less scope for only one organization to shape things without it having an impact on others. This means that implementation usually requires the deployment of many actors and actions across multiple organizations. Alexander (1995) formulates a structural dimension to coordination and although his work is multi-layered, three pivotal elements in his work which are crucial to inter-organizational coordination merit attention. First, is his emphasis on control mechanisms which he argues are a precondition for coordination structures. Second, is his identification of different types of interdependence which he says contributes to a determinate or predictable organisational structure or form. Third, he succinctly identifies a basket or set of coordination tools (sometimes also referred to as coordination mechanisms) which are pivotal to any coordination process.

4.7.1 Control Mechanisms

Alexander (1995) imputes adjustment structures which permeate society as the structural mechanism that controls the shape of inter-organizational coordination. Markets are one example of such structural mechanisms. Within markets coordination takes place through mutual adjustment between rational and self-interested actors (Alexander, 1995: 4). Markets can also take a variety of forms. Such variation can even encompass a political market in which transactions are expressed through legislatures, committees, regulatory and executive agencies and also informally between organisations (Alexander, 1995: 4). Provision is also made in this viewpoint for quasi-markets to be subsumed under the structural coordination of markets. Alexander thus argues that ‘market-like relationships also provide the arenas for coordinated interaction between individuals and organizations in a variety of settings’ (Alexander, 1995: 5). What characterises the variety of these market forms according to Alexander is a common framework of rules and mutual obligations that enable participants to engage in market-like interactions. These interactions contribute to mutually beneficial coordinated actions (Alexander, 1995: 5). Alexander says that within market exchange, organizations interact solely through mutual adjustment (Alexander, 1995: 30). The plurality

of organisations demarcated into an organisational field that is coordinated through mutual adjustment, are known as markets.

Apart from markets, organisations can be grouped into solidarity fields and hierarchical fields. Solidarity fields are characterised by organisations that are linked mainly through communalistic reciprocal transactions (Alexander, 1995: 30). Rights and environmental groups and organisations are examples of organisations that typically conform to a solidarity field. Hierarchy characterises organisational fields that are linked by hierarchical forms of inter-organisational coordination (Alexander, 1995: 30). These differing organisational contexts and fields to inter-organisational linkages are sometimes also referred to as the division of the inter-organisational universe between: community, hierarchy and market (Alexander, 1995: 30). The three specific control mechanisms associated with each of market, hierarchy and community are according to Alexander respectively the mechanism of: price, authority and trust (Alexander, 1995: 54). Furthermore, just as the community field is posited to fit between markets and hierarchies, the mutual organisation too is assigned an intermediate range between hierarchy and market. The same applies to associational networks such as a trade union federation.

4.7.2 Interdependencies

Alexander suggests that the type of interdependence which organisations command in relation to one another is an important precondition for inter-organisational coordination. Interdependence based on input/output relationships between organisations are of three types. Alexander identifies the most basic form of interdependence which stem from input/output relationships as serial interdependence. Here one unit's product or output is the input for another (Alexander, 1995: 31). Serial interdependence between separate organisations is referred to as sequential interdependence (Alexander, 1995: 31). Sequential interdependence that involves high human capital transaction investment will increasingly lead to more formal coordination and control. It can result in fully hierarchical coordination where the organisational forms culminate into a single organisation characterised by either vertical or horizontal integration (Alexander, 1995: 32).

A second type of interdependence known as reciprocal interdependence is more complex than serial or sequential interdependence. Reciprocal interdependence occurs where one unit's

output is an input for another unit's activities and simultaneously, the other unit's product is an input to the initial unit. This too can lead to mergers of different units.

The third type of interdependence is pooled interdependence. Pooled interdependence occurs through mutual commonality. It can either involve competitive or symbolic (or commensal) interdependence. Different types of pooled interdependence experience variations in resource dependency. These have generated several types of coordination structures such as the joint venture and the trade association (Alexander, 1995: 34). Research evidence summarised by Alexander suggests that pooled interdependence has usually resulted in low levels of inter-organisational coordination and was associated with poorly integrated coordination structures (Alexander, 1995: 35). More satisfactory inter-organisational integration resulted from sequential interdependence but many of these initiatives experienced delayed implementation with uneven quality (Alexander, 1995: 35). The lessons from these studies emphasised the importance of resource availability to inter-organisational implementation.

4.7.3 Coordination Tools

Finally, the third element which is pivotal to inter-organisational coordination involves coordination tools which some authors also refer to as coordination mechanisms. Some authors also use the terms 'tools' and 'strategies' interchangeably. According to Alexander (1995: 40) coordination tools are the basic elements for inter-organisational coordination to take place. Examples of coordination tools include: joint planning, overlapping board memberships and contracts (Alexander, 1995: 40). Thus tools can be nested in the framework of strategies but the reverse does not apply. Describing in more detail what coordination tools potentially encompass, Alexander notes:

'Thus bidding and contracts would be coordination tools used in the context of a competitive strategy, or overlapping board memberships could be part of a co-optation strategy. Joint planning and budget signoff might be employed as tools in a cooperative strategy, or be built into organizations' or organizational units' prescribed relationships in a structural strategy of reorganization.

Coordination tools comprise formal and informal processes and linkages. "Informal coordinative mechanisms" include interpersonal contacts and informal channels of communication (Chisholm, 1989: 64-85), which may be effected through ad-hoc meetings, telephone contacts, or correspondence (e.g. distribution of informational material to a wider mailing list than the people formally linked to the source)' (Alexander, 1995: 41).

According to Alexander (1995: 42), different sets of formal coordination tools can be invoked. One set are structural coordination devices which cover the formalisation and standardisation of tasks. Typically, this is achieved through standard operating procedures and routines, schedules and blueprints (Alexander, 1995: 42).

Another set of formal coordination tools are linkage devices. These include: inter-organisational agreements and contracts and are responsible for assigning responsibilities but can also regulate resource exchanges. In areas where coordination can potentially take root, linkages can be achieved through joint planning and joint budgeting. Linkage devices can also be instituted through programmatic interconnections such as: 'staff exchanges, collocation, joint or combined services delivery, out-stationing of personnel and mutual consultation (Alexander, 1995: 42). Tools that are designed to improve programme management interventions can also be used to direct mandatory funding such as training levies towards certain implementation goals. These can also be mobilised to strengthen the formal coordination of designated goals and strategies. Alexander says that these can 'include grant allocation formulas, categorical grants, loan guarantees, insurance subsidies and tax incentives or deferments' (Alexander, 1995: 42). The skills development levy which is a core component to the funding of work-based training in South Africa would be an example of a coordination tool which is designed to produce coordinated action as a result of resource exchange (Alexander, 1995: 42). Other programme management devices which are used to harness the coordination of service delivery or project execution include:

'...program control tools such as plan review and approval, licensing, contract terms, interpretation of regulations and discretionary waivers, audits, monitoring and evaluation. Program control also involves the threat or invocation of sanctions such as stopping funding, withholding future funding, or closing programs or facilities. Specification or participation to influence the selection of key personnel is another way of exercising program control' (Alexander, 1995: 42-43).

A number of different characterisations can be used to group organisations which share a common environment and purpose. Drawing on contemporary literature, Alexander (1995) indicates that different terms have been used to capture specific dimensions of these organisational relationships. These include terms such as 'action set', 'policy issue network' or 'policy system'. In the context where policy is still under development and therefore still taking shape, the term 'advocacy coalition' has been applied to organisations involved with

the process. Similarly, organisations involved in a common programme or project, have been referred to as an ‘implementation set’ (Alexander, 1995: 26-27).

The process of coordination can only be brought about through control mechanisms which harness different types of interdependencies. Similarly, control mechanisms and the different types of interdependencies at play will shape the tools that are available to affect coordination and bring about change.

4.7.4 Coordination Structures

The intelligence and decision-making process to put coordination with its potentially different organisational linkages and dimensions into motion is referred to as a coordination structure. Alexander refers to a coordinating structure as ‘the form of the coordinating mechanism linking the decision centers in an organization or of the relevant organizations in an interorganizational system’ (Alexander, 1995: 49). A coordinating structure can take multiple forms. It can exist within a single organisation. Examples include liaison devices or even through management controls in ‘divisionalised’ organisations as well as through similar controls exercised through the holding corporation. It can also span several organisations. Where coordination takes place between multiple organisations or organisational sets, coordination structures can be identified at several levels.

An additional reason according to Alexander (1995: 51) for the significance of coordination structures to inter-organisational coordination is that it provides a format or menu to institutional design. Coordination typically necessitates structural change in existing organisational configurations. Such structural change cannot occur without making provision for some level of institutional design or re-design.

Alexander (1995) formulates an organisational matrix which helps to situate coordination structures. Coincidentally, it corresponds along one of its axes – for simplicity I call it the vertical axis – to elements of Merton’s middle range theory elaborated in Section 4.2 of this chapter. But unlike Merton’s theory, it is more explicit about the hierarchical range that it covers. However, instead of this hierarchical range spanning micro-, meso- and macro-levels as Merton’s theory suggested, Alexander’s hierarchy ranges from micro-, meso- to meta-levels. Each level is differentiated by increases in organisational complexity and scale.

Thus, meta-structures exist at the highest level and ‘embraces the interorganizational field as a whole (Alexander, 1995: 52). Below the meta-level is the meso-level which covers ‘a particular interorganizational system, “action set: or “implementation set” of organizations’ (Alexander, 1995: 52). Meso-structures thus link inter-organisational systems for inter-organisational coordination (Alexander, 1995: 53). Meso-structures therefore:

‘... cover a wide range from the informal network in the market context, through various types of “action sets” and mutual associations such as joint ventures and federations, to more formally linked “implementation sets” of organizations in mandated frameworks, and single organizations of various forms, from the loosely linked conglomerate to the unitary organization’ (Alexander, 1995: 53).

Micro-structures constitute the lowest level and:

‘... are devices for linking intra- or interorganizational decision centres. These exist within and in conjunction with the higher level coordination structures. They include informal links, the interorganizational group, the bilateral liaison or boundary spanning role, the multiunit coordinator and the coordinating unit’ (Alexander, 1995: 53).

Although there is huge merit in devoting time to comprehend Alexander’s rich conception of inter-organizational coordination, one still has to exercise patience with his often discursive elaboration of the components which constitute inter-organizational coordination. Most important is to understand how he assigns a framework to each of the three distinct coordination structures of: market, community and hierarchy. In principle, because the market as a coordinating structure is dependent on price as a regulator to ensure coordination adjustment, the framework which markets typically exhibit is one of mutual adjustment (Alexander, 1995: 56). Resources which are necessary to ensure that coordination under markets take place, are deployed through mutual adjustment. If there is no consent on the coordination imperatives under markets, resources are not released. Conceptually, market coordination is pervaded by a *framework of mutual adjustment*.

Institutions and organisations that are grouped under ‘community’ exhibit and project a more solidaristic outlook to social organisation. Examples of such institutions within a South African context are cooperatives, community organisations, non-profit institutions. In and among institutions that make up the community sector, trust is a regulator to coordination and coordination adjustment. Trust is fuelled by ingredients such as reciprocity and sacrifice. Although not absent in other coordination structures, these elements play a significant role to

coordinate, shape and generate social change. Alexander refers to the framework which this segment of society generates as the solidarity framework:

‘In the solidarity framework, coordination is the result of a sense of mutual obligation among its participating units. This may be the product of any or all of several factors: shared beliefs or values, common affiliation, and long-term reciprocal interaction. The family, clan and tribe are the traditional forms of societal organization which are examples of solidarity-based coordination, but the family is still universal, and clans and tribes remain common in some societies today’ (Alexander, 1995: 58).

Importantly, Alexander notes that professionals who often galvanise around shared values and ideas develop relationships with each other and with organisations where their activities and actions are regulated through a framework of solidarity. Similarly, ‘solidarity based coordination can also take the form of a “collegium”: a peer-group sharing disciplinary or professional values’ (Alexander, 1995: 58). Therefore, conceptually, community coordination is pervaded by a *framework of solidarity*.

The final peg to comprehending frameworks that broadly correspond to coordination structures is reserved for mandated frameworks. Typically coordination that is mediated through authority structures puts greater emphasis on mediated frameworks to ensure that coordination and specifically inter-organisation coordination indeed takes place. It is more likely that hierarchical systems, action sets or implementation sets will impose or use authority to sanction or mandate a framework through which coordination is attained. As Alexander avers:

‘... mandated frameworks produce coordinated action primarily by providing a legitimised set of rules or norms to govern specific types of resource exchange. Resource allocation is the incentive for coordinated action in another type of mandated framework: the categorical grant programme, which is a type of non-administrative program’ (Alexander, 1995: 60).

To reiterate, hierarchical coordination structures (e.g. centralised state or ‘divisionalised’ corporation – with General Motors being its exemplar in the literature for the 1990s and earlier) has the authority that allows one to conceptually perceive that hierarchies are pervaded by a framework which mandates. This is known as a *mandated framework*.

The NSDS in South Africa which is financed through a levy-grant system is also an example of a mandated framework. In this instance, through its authority and persuasion, the South African government sets the parameters of the framework. It is mandated through legislation

and regulation governing its tools or mechanisms, such as the payroll levies which form the bastion to the levy-grant system as it operates in South Africa.

However, Alexander's text did not systematically formulate the matrix of coordination structures so that the appropriate balance could be comprehended between hierarchical levels on the one axis with control mechanisms on the other. This is because his text conflates control mechanisms with hierarchical levels. While his characterisation of control mechanisms is not incorrect, it does create some confusion. One can rectify this by stating quite simply that there are typically three coordination structures consisting of markets, hierarchies and solidarity (or community) that permeate across all three hierarchical or societal organizational levels (e.g. micro-, meso- and meta-levels). As structural mechanisms or coordination structures, markets, hierarchies and solidarity (or community) are in general each respectively regulated and controlled through the mechanism of price, authority and trust. When these mechanisms are disrupted, the structural mechanism or coordination structure of markets, hierarchies and solidarity (or community) will in turn also be disrupted. The same applies should the mechanism collapse; it would lead to the collapse of the structural mechanism or coordination structure. With this said, the matrix is complete and in fact is clearly represented in the Table 4.2 below which I have extracted from Alexander (1995: 55, Figure 1).

Table 4.2: Inter-organisational Coordination Structures

Societal Organizational Level	Control Mechanisms		
	Solidarity (Community)	Market	Hierarchy (Organization)
Meta-Level	solidarity frameworks	Interorganizational networks	mandated frameworks
	quasi-market (consensual)	mutual organizations	quasi-market (mandated)
			internal markets
			managed markets
			artificial markets
			programme
Meso-Level			project
	advocacy coalition	Interorganizational networks	federation
	alliance/coalition	mutual organizations	association
	tribe	alliance/coalition	lead organisation
	clan	Joint venture	single organisation
	collective	federation	
Micro-Level	commune		
	family	informal links	interorganizational group
	clan	liaison boundary spanner	coordinator
		interorganizational group	coordinating unit

This brings to a close the theoretical observations which the thesis advances. In chapters 5 to 7 a more empirical dimension to the coordination of enterprise skill formation as it unfolded in South Africa will be examined. However, the theoretical observations formulated in chapters 3 and 4, are infused and permeate the content of the empirical findings to the thesis.

Chapter 5: Coordination and Formation of Enterprise Skills in South Africa during the Segregationist Period: late 1870s to the 1950s

5.1 Introduction

In this chapter a discussion is presented of the process to the coordination of the supply of enterprise skill formation as it has evolved historically. This discussion covers the period that roughly extends from the discovery of precious minerals in the South African hinterland (late 1860s), the process which started its exploitation (1870s and 1880s) as well as the extensive mining-led industrialisation (1870s to 1950s) which characterised the period until well after the Second World War. The need for a stable and consistent labour supply, to feed this process, is a key factor, to understanding the economic history of modern South Africa. There is a voluminous literature which covers this subject but a more up to date introduction is given in Feinstein (2005). In this chapter, attention is directed to the emergence of strategies, institutional designs as well as the active intellectual knowledge and support which gradually coalesced to realise the challenge of the coordination process to the supply of enterprise skill formation. This occurred incrementally in the decades which followed the mining revolution in South Africa. The analysis extends from the late 1870s to the late 1950s.

When one addresses the coordination of skills development among firms, it is important to distinguish between the coordination needs of individual firms on the one side versus larger collective groupings of firms on the other. Comparative institutional theorists have been at the forefront in making a strong argument using this distinction. Kathleen Thelen (2004) applies this approach to an analysis of the historical emergence of skill formation regimes across four countries in the early decades of the twentieth century: Germany, Britain, the United States and Japan. Individual firms themselves will favour collective coordination processes which guarantee provision of skills to their own specific 'firm' because this signals consistency in policies towards skill formation especially in government policy. Moreover, it provides firms with a degree of stability and certainty in the manner each individually relates to engagement with such policies.

The argument put forward in this chapter is that the process to the coordination and regulation of enterprise level skills in South Africa suggests profound continuities between the attempts made at the turn of the twentieth century from what was eventually institutionalised in a more complex fashion towards the closing years of the fifties. This trajectory continued until the end of the apartheid period at the beginning of the 1990s. But if the period of democratic rule contradicts this trend, it will have shown discontinuities, notwithstanding the legacy of racial inequality in the formation of skill in South Africa. Arguments for continuity appear to be consistent with the arguments of Thelen (2004) about how vocational training systems in both liberal and coordinated market economies are replicated, notwithstanding policies which are intermittently invoked to introduce and adopt successful features of the one onto the other.

South Africa is quite unique in adopting a vocational training system in the late 19th and early 20th centuries which was modelled on Britain. However, its policy makers were not immune to experimenting with adjustments to the country's vocational training system. In South Africa's vocational training history the successes of the German model became particularly attractive especially from the mid-1930s. Nonetheless, South Africa was never successful in discarding a vocational training model which exhibited perennially enduring features of a liberal vocational training system (Lundall, 1998). This was despite the importance that the apprenticeship system played in constituting the core content and reference to vocational training.

5.2 Apprenticeship Training as the Bedrock for Coordination and Regulation of Enterprise Skills Formation

It is a truism, but also necessary to state that in societies where workplace training through apprenticeship precedes the development of a 'massified' state supported and funded school education system, the apprenticeship training system remained an important bastion to the formation of skills. This was especially evident for the emerging economies of early industrialising countries as was the case in South Africa. So despite many inherent limitations, the apprenticeship system acquired an association with the skill formation systems which gradually evolved in such societies (e.g. Britain and Germany). While

apprenticeship training systems bear common historical roots and traces of a lineage which extends to the craft guilds, these systems showed significant divergences. These divergences were already visible by the beginning of the early twentieth century when, as our analysis shows, the South African skills development system begins to establish rudimentary anchors. In a sense therefore, the apprenticeship training system – as was the case for many early industrialising countries – and for South Africa too, can be generalised as a skills formation institution that was the bedrock to the coordination and regulation of enterprise skills development and supply.

Though this is a premise which permeates this thesis, it is quite important to note that since apprenticeship training systems rest on complicated social relations, dynamics and associations which are unique and specific to almost every single country, the notion that such apprenticeship training systems can be imitated and replicated in toto from one society to the next is extremely difficult. While perhaps bearing some continuities such borrowed systems rapidly developed menus, contingent applications and implementation short-cuts which soon differentiated it from the system in the colonial or mother country (Root & Wachira, 2009). In the contemporary era, where skills development systems have acquired a more complex configuration, similar borrowings too will necessitate qualifications about imitation and replication. Qualifications about the infeasibility of exporting vocational training systems in their entirety are also prudently demonstrated by Euler (2013).

But despite making this qualification at the start of this chapter, it should not detract from the fact that state-functionaries, policy-makers, institutional-designers and advocates – under the guise of adopting *best-practice* – will continuously and consistently hold and refer to such imitation and replication as representing a real undiluted exchange and transfer. Consequently, even when acknowledged that the apprenticeship system which initially emerged in South Africa was based on the British model, the actual apprenticeship system which emerged in South Africa was not the British apprenticeship system. It was merely modelled on the British apprenticeship system. As such, while having many parallels to the British system, it gradually acquired its own specific national characteristics. The same qualification applies to subsequent policy borrowings and institutional imitations that have characterised later emendations of the South African skills formation system particularly after the abrogation of apartheid and the birth of a democratic dispensation in 1994 (see Badroodien & McGrath, 2005).

5.3 Comparative Apprenticeship Systems and its Coordination

A central concern in this thesis is to gain clarity and postulate the process of coordination in skill formation systems particularly the coordination in the formation of a skilled labour supply. How does such coordination work and what are its source and anchor point? This chapter will reflect on this question using evidence from South Africa. If one used evidence from the period of the initial emergence of capitalism (see Farr (2000) for a more detailed analysis) in which craft guilds largely defined and shaped the apprenticeship training system, it was also the general source and root to the coordination of the supply of skills. It resulted in masters either controlling the craft guilds as an oligarchic stratum. Masters also carried out the transmission of knowledge and training. This condition would have been strengthened by the promulgation of legislation. The institutional arrangement simultaneously functioned to regulate wages, maintain employment stability for skilled labour by exercising control over positions of employment. It also formalised apprenticeship training under indenture laws. In England the Statute of Apprentices (or Artificers) which formed the bastion of laws designed for this purpose was promulgated in 1563 (Foot, 1980). The comparative legal and social framework for the dissolving medieval and the emerging capitalist economies of Western Europe effectively established craft masters under the auspices of guilds as the drivers of coordination. It occurred mainly under a limited but growing market. Here through indenture agreements craft masters had authority to shape and dictate the dispensation of training in a skill. Their remuneration, recruitment and transmission of craft knowledge through the training of apprentices and other subordinates was closely monitored by the respective guilds which had the authority and jurisdiction on the matter.

Following the trend of the French revolution of 1789, as the struggle against absolutism in Western Europe intensified, guilds were gradually outlawed and guild regulation in respect of apprenticeship training began to be modified. It also meant that the generalised notion of control being exercised over apprenticeship training was no longer the uncontested preserve of master artisans. Master artisans typically operated their own craft establishments. Where they did not do so, they worked for other masters as hired journeymen employees. It was at this point that different routes to the control and coordination of apprenticeship training

became possible. Two routes are apparent: coordination of the supply of skilled craft labour through master controlled guilds on the one hand or coordination of the supply of skilled craft labour through craft unions.

5.3.1 Germany

In Germany towards the late nineteenth century, unlike the situation in England which showed signs of the dissolution of traditional apprenticeship, apprenticeship training of artisans was still under the auspices of the organised handicraft sector (Thelen, 2004: 39-40 provides a useful account). Apprentices learnt their trade on the job under the supervision of a master craftsman. Industrialisation and the growth of manufacturing industry was however encouraging large firms to train their apprentices in-house but in training workshops that were partially removed from normal operational activities. To pre-empt a contentious struggle for the radicalisation, seizure and control of the traditional apprenticeship training system by non-traditional interests (e.g. skilled workers or large manufacturers) and thereby maintain an historical status quo, the late 19th century imperial German state devised a strategy to use the agency of a conservative stabilising stratum as a means to institutionally preserve the traditional apprenticeship system. Ostensibly its design served to keep radical forces in check. The Prussian state therefore passed a law in 1897 that would preserve this conservative stabilising force. Known as the Handicraft Protection Law (Thelen, 2004: 43), it allowed handicraft chambers to function alongside voluntary guilds. These occurred under a Chamber of Crafts which served as an umbrella organisation. Thus as Gessler and Howe (2013: 23) argue, the Chamber of Crafts was an intermediary organisation under state control. It formalised the protection and institutionalisation of a traditional master-led [*Meisterlehre*] training model of on-the-job training in specialised craft production firms.

These handicraft chambers ‘were endowed with extensive powers to regulate the content and quality of craft apprenticeship’ (Thelen, 2004: 44). As well as set the standards for artisans, the Handicraft Chambers (Thelen’s translation) or the Craft Chambers (Gessler & Howe’s translation), were responsible for regulating and controlling the guilds. It set minimum standards – based on age and working experience in journeyman occupations – for craftsmen to be allowed to take and train new apprentices. By setting limits on the number of apprentices a firm could take, as well as regulating the length of apprenticeship contracts, the intention was to prevent abuse and exploitation of apprentices as cheap labour.

Apprenticeship examinations were instituted and representatives working as a chamber inspectorate were appointed to monitor training quality and if necessary revoke the licence of firms in the handicraft sector who failed to meet the apprenticeship training standards of the handicraft chamber. Gessler and Howe note that:

‘Chambers of Crafts received a de facto examination monopoly in the area of apprenticeships; the master title was protected by law. A further amendment of the Trade Regulation in 1908 finally re-introduced the evidence of competence: the right to vocational training was now once again linked to the (medieval) master title’ (Gessler & Howe, 2013: 24).

As Thelen (2004: 44) presciently remarks, the 1897 legislation constituted the cornerstone of the German vocational training system and its subsequent evolution.

This progression in German apprenticeship training has enormous relevance to vocational training in South Africa. On the opposite side, ‘Germany’s large machine producers sought to “rationalize” training by instituting firm-based apprenticeship workshops’ (Thelen, 2004: 55). The idea was to train apprentices in larger groups in dedicated training workshops that were separated from the actual production activity of the firm. But it was in the interests of large firms to transfer such training schools to the state thereby lessening the cost burden on employers for training. Because, the handicraft sector had a monopoly over the standard setting and certification of apprenticeship training in Germany, the large scale machine producers waged a long struggle for universal standardization which would allow them to expand the volume of apprentices undergoing training in factory apprenticeship workshops. More importantly the large machine producers sought to overcome the regulatory oversight of handicraft quality assurance and certification requirements. They were insistent that the skill formation system should be reformed and modernised for expanded growth. It resulted at the beginning of the twentieth century in a parallel system of vocational training based in large manufacturing enterprises operating alongside the craftsmanship system. In the words of Thelen:

‘Tensions between the two systems changed the main route of institutional development. As a result, the system departed from the decentralised and rather unsystematic apprenticeship, which had been characteristic of the older craftsmanship model, and achieved a far higher degree of centralization, standardization and uniformity – elements, that are considered today as determining features of the German system’ (Thelen quoted and translated in Gessler & Howe, 2013: 25).

Essentially the skills training regime in Germany was set by a coalition of shifting alliances between different employer interests over the direction of the vocational training system. The evolution of vocational training and the skill formation process in Germany serves as an exemplary model to coordination between employers on the substance and most suitable direction that had to be taken to strengthen the overall skills development system. It is for this reason that the German model is commonly referred to as a coordinated training regime.

5.3.2 Britain

The trajectory in Britain, as was alluded to earlier was different. The successful struggle against absolutism in England occurred more than a century before the French revolution. When the Dutch landed by sea at the tip of the African continent to what was later to be known as the *Cape of Good Hope* and a province in a future South Africa, Oliver Cromwell as Lord Protector had already fought a civil war, defeated and beheaded King Charles I, the monarch of England. As Lord Protector from 1653, he would lead a republican government in England until his death in 1659 (Christopher Hill, 1970). In line with its quest to displace the colonial might of Catholic Spain, England's foreign policy was bent on expanding the commercial power of a unified Britain. A war of conquest and colonisation was being waged against Ireland. Through migration from the mother country, the New England colonial settlements in North America, was being strengthened. England's naval and commercial power was in the ascendancy. The British overseas empire was still only in its infancy but would over the next one-and-a-half-centuries become the largest sea-borne, trade, commercial and settlement-empire the world would know. These conditions created a much more favourable climate for new commercial opportunities and ventures. It also expanded the organisational forms to business enterprises owing mainly to expansion in the division of labour beyond traditional craft enterprises (e.g. the putting-out system). These changes to the British economy were well under way from the second half of the seventeenth century.

Commercial growth and foreign trade accelerated the industrial revolution in England. As it established firmer roots, illegal masters and larger capitalist employers at first surreptitiously, later overtly, started to violate the protected employment practices which the guilds had traditionally upheld (Kramer, 1927: 158-160). From at least the Stuart period (i.e. beginning of the seventeenth century), the English government was less inclined to defend traditional privileges (Thelen, 2004: 94). Independent journeymen and struggling independent master

artisans banded together to maintain seven year apprenticeship indentures. They also sought controls over the number admitted into apprenticeship training. It is evident that in relation to a state more attuned to a liberal policy of revoking traditional privileges, guilds were bound to have less influence in regulating labour market conditions of skilled journeymen artisans.

Neither were guilds able to stem the recruitment of young men into apprenticeships. As Hewins (1892: 81-82) shows, the onset of this trend began to emerge at the time of the English Civil War although Sharpe (1980: 76-77) presents evidence of this already occurring in the 1620s. As a result, guilds became a moribund force. Guilds were not able to control the influx of new workers into the realms which it traditionally protected and regulated through qualifying indentures. Neither were guilds able to protect the rights and working conditions of new entrants which had begun to overwhelm the dykes and arches of the guild system (Kramer, 1927: 186-188). A new form of industrial organisation based on the association of workers therefore came into being. What guilds had been unsuccessful at preventing, trade unions began to address through controls exercised by a membership made up mainly of journeymen and not masters. The objectives of the working men's associations, a nascent form of craft-based trade unions, were mainly to protect and uphold wage rates, regulate recruitment to the trades and control the education and training of new incumbents.

Despite the Combination Acts of 1799 and 1800 banning all forms of trade unions in Britain (Thelen, 2004: 96), such prohibitions had a more onerous effect on unskilled workers. Skilled workers possessed skills which employers desperately needed to maintain production. Skilled workers in Britain were therefore able to subvert the Combination Laws and organised themselves into 'Friendly Societies' especially in the period from 1800 to 1820. Journeymen made regular contributions to their designated 'Friendly Society', which they and their families could draw upon during unemployment, sickness or death of breadwinners (Thelen, 2004: 96). Small masters too retained membership of a trade club or society as something to fall back upon under adverse conditions. The 'Friendly Society' was a small step from guilds to membership in a trade union which was based on craft control.

Naturally the quest to control the labour market for skilled craft workers had a direct bearing on the apprenticeship system. Control implied setting limits to the supply of new artisans. It strengthened the bargaining position of artisans in relation to employers. A relatively weak labour market policy from the British state (compared to Germany) merely intensified the

adoption of craft control strategies in early British trade unions. Thus, when the Combination Laws prohibiting trade union organisation was repealed in 1824, skilled workers appropriated the organisational devices fashioned for greater protection during the earlier phase of collective prohibition and inserted these into their own craft unions which they started to formally build. Craft control strategies were geared to exclude non-apprenticed workers from protected skilled occupations. It also excluded non-artisans from enjoying membership of such craft unions. Craft control measures were typically applied to maintain levels of remuneration, conditions of employment and the supply of recruits undergoing industrial training in designated skilled occupations. A high premium was placed on guaranteed contractual rights for some which would ensure that the artisan was not reduced to the same miserable status and condition of unskilled workers. It sought to control access points to the labour market for skilled occupations. These craft control measures did not place the same emphasis on quality concerns as for instance was the case in the German handicraft sector.

When compared to South African labour history, it bore similarities to racial job reservation but since it functioned in a racially homogenous country (England), it reserved skilled jobs along lines of occupation and craft by differentiating between the inclusion of a labour aristocracy and the exclusion of an industrial proletariat. Unlike the German metal and engineering industries, where contestation to reform and innovate the vocational training system was principally between the handicraft sector and large engineering firms, in Britain, the axis of conflict and contestation of apprenticeship training was between employers and unions representing skilled workers (Thelen, 2004: 104). The outcome of the entire process of conflict and contestation about apprenticeship was a precursor to establishing new conditions for apprenticeship coordination which would be more stable and entrenched.

Coordination of the skills agenda in Britain was through a contestation over the definition and control of skill between craft unions and employers. As long as the craft trade unions which defended the control over craft skills remained strong, this kept employers at bay. It meant that the craft trade unions played a pivotal role in exercising a coordination function to the supply of apprentices into craft and artisan trades. Throughout the process, the state pursued a voluntarist training agenda. The specific characterisation and configuration of the apprenticeship system in Britain in the late nineteenth century that subsequently formed the bedrock to skills training which evolved in Britain over the course of the twentieth century

has been variously characterised as a liberal or uncoordinated training regime (see Finegold & Soskice, 1988; Heyes & Stuart, 1994).

5.4 The South African Inheritance

As was indicated above, the South African apprenticeship system was modelled on the British apprenticeship system. The peculiar circumstances of mineral discoveries on the South African hinterland during the 19th century which gave major impetus to the subsequent industrialisation of the country shaped this adoption.

The Cape of Good Hope was a Dutch colony for just roughly 150 years. It was however lost to the British permanently in 1806 (Feinstein, 2005: 27). To maintain its strategic hold of its colonial possession but also as a result of employment and financial crises at home, Britain encouraged emigration among its citizens to South Africa. These occurred in small streams: first the 1820 settlers who landed at Algoa Bay (in the contemporary city of Port Elizabeth) and settled in the Eastern Cape hinterland and then as several migratory flows to fill the gap left by the north easterly migration of the Voortrekkers from the Cape Colony from 1835 onwards. Later when the colony of Natal was annexed from the *Voortrekkers* in 1843, British settlers flowed into this colonial possession too (This description is drawn mainly from Feinstein, 2005)

The most cataclysmic events that would finally accelerate gravitation towards construction of a vocational training system in South Africa was the mining revolution that followed the discovery of diamonds in the 1870s and the discovery of gold in the 1880s. Because South Africa was a colony to the world's most advanced industrial power, it was quite natural that the bulk of the skilled technical labour and managerial labour force that was required to develop these new diamond and gold mines would be drawn mainly but not exclusively from Britain. The engineers and skilled artisans were drawn from immigrants that were predominantly steeped in English traditions and organisational cultures. Naturally, too the conceptions of craft control that this layer of skilled workers exuded was transferred and applied anew to the South Africa context.

As the mining sector in South Africa emerged, first in the north-eastern and north-western regions of the Cape Colony, after the annexation of Griqualand West from the Griquas with the mining of kimberlite diamonds at Kimberley and copper at Springbok, this was followed later with the establishment of gold mines on the Witwatersrand in the South African Republic (which today falls mainly in the province of Gauteng), a railway transport infrastructure started to be built. The railway network linked the interior mining towns to the major ports of Southern Africa: Cape Town, Port Elizabeth, East London, Durban and Delgoa Bay (later Lorenzo Marques and today Maputo).

The most immediate industry that rose in tandem with the mining industry and the railway sector was the engineering industry (Webster, 1985: 25). The need for food and raw material supplies in the new mining towns would have deepened the food and agricultural markets which emerged as immigrants, both local and foreign were attracted to the mining rush which escalated from the 1870s. While engineering services to the burgeoning mining industry would have grown through sub-contracting and jobbing, on the railways such engineering services would have had to be provided in-house in railway workshops. We know almost nothing about the vocational training cultures within these inter-dependent industries (mining, rail transport and engineering supplies) in the years immediately before the 1899 Anglo-Boer War. Drawing from the Industrial Census of 1910, Webster (1985) remarks that in the engineering industry, 'prior to 1900 the 189 establishments that existed were either repair shops or blacksmith shops' (Webster, 1985: 25).

The critical industrial skills that the emerging enterprises required were drawn mainly from an immigrant industrial European working class population interspersed with skills that were embedded locally. The Report of the Industrial Legislation Commission of 1935 tried to give an abbreviated account of this history:

'The opening up of the diamond and gold mines found the Union in urgent need of skilled tradesmen and necessitated the importation of large numbers from oversea. With the growth of trade unions the training of South African youths and apprenticeship began to assume importance. The number of apprentices was regulated largely by the influence the trade unions were able to exert; ratios of not more than one apprentice to four and five journeymen were, we are informed, common. Outside the mining industry and the State railways, few apprentices were however, employed' (U.G. 37/1935, para. 691).

Industrial training was mainly located in the artisan trades. The skills which these trades subsisted on, was often passed from father to son and through inflows of immigrant labour. Skilled labour in the Cape Colony was performed by a skilled artisanal force which became entrenched in the traditional craft industries which emerged: building, masonry, carpentry, blacksmithing, wagon-building etc. Since European immigrants under the Dutch administration preferred to engage in farming activities, there was a perennial shortage of craftsmen at the Cape of Good Hope. The Dutch East India Company filled the void by importing East Asian slaves to meet the craft labour needs of the emerging colony. These slaves were mainly from Java, adjoining Indonesian islands and Malaysia. In their new homeland, the East Asian slaves retained these craft skills and transmitted it generationally to their descendants. Traces of these beginnings are very much inscribed into present day craft labour markets of the Western Cape. Although, the earlier Masters and Servants legislation which was applied in the Cape Colony provided for the training of apprentices and indentured labour in domestic service, handicrafts and agriculture, the legal regulation of this process was shaped by successive repressive state apparatuses. Generally, the regulations guiding apprenticeship training from the mid-seventeenth century to the early nineteenth century within the Cape Colony, was more repressive than under the guilds in thirteenth century Europe. In the Cape Colony, apprenticeship based on indenture was a customised system to the perpetuation of slavery (Worden, 1994; Scully, 1994). Unlike the guilds where the masters managed apprenticeship training through an exclusive form of guild democracy, in South Africa, this task was performed in the absence of guilds, first through a Dutch colonial state which institutionalised slavery and later by an English colonial state, bent on Anglicising the remnants of Dutch settlers in the Cape Colony (see Dooling, 2007)

The mining revolution necessitated the expansion of a railway network which linked hinterland mining towns to port cities. Drawing on official reports, Alexander Wilmot (1892) provided an apt description of activities in the Railway Workshops of the Cape Colony towards the end of the 19th century. Wilmot identified three categories of workshop activity. These consisted of first, repairing of locomotive engines, second, building carriages and wagons and third repairing carriages and wagons. Among the main trade occupations performed by skilled workers at Salt River, Uitenhage and East London, the three principal railway workshops in the Cape Colony were: engine-fitters, turners, works of machinery for cutting metals, Blacksmiths, spring-makers, boiler-makers, iron and brass moulders, pattern makers, coppersmiths, lamp-makers, grinders, carriage body builders and repairers, wagon

builders and repairers, workers of timber converting machinery, painters, carriage trimmers and tarpaulin-makers. In addition there were also jobs that were not classified as tradesmen occupations such as Blacksmiths-strikers, wagon lifters, stationary engine drivers and helpers (Wilmot, 1892: 91).

Numerically, taking into account both men and boys and excluding engine drivers, firemen, cleaners, shed men, coalmen and pumpers, 590 were engaged on the Western System (where the main railway workshop was Salt River), 492 were engaged on the Midland System (where Uitenhage was the main railway workshop) and 222 were engaged on the Eastern System (where East London was the main railway workshop). While Wilmot did not provide further details on the industrial training system that was in force at the time, he did leave clues to the rough breakdown between skilled workers and boys and youths that had not yet acquired artisan status:

‘Of the total number employed, 191 are boys and youths who have not attained the rank of skilled artisans, the number of applicants for the admission of boys to the workshop being largely in excess of the number which can be employed’(Wilmot: 1892: 91).

While relatively little is known about the type of industrial training which was provided in the railway workshops during the period that Wilmot wrote, he provided a more detailed description of the types of fabrication activities which were taking place within these workshops during the early 1890s. In Wilmot’s own words:

‘There has been a gradual diminution in the importation of finished parts of locomotive engines nearly all of which are now manufactured in the form of bars and plates, the only articles of regular consumption imported ready for fixing in position being brass boiler tubes.

‘The advance made in the production of castings in iron and brass has been very marked, the quality of both being now equal to the best that could be imported and the manufacture of locomotive engine cylinders which have hitherto been imported has recently commenced.

‘All the worn and broken parts of cast iron and brass are re-melted and new castings made for them, in addition to which purchase of scrap iron are made, a quantity of broken columns from the late exhibition building at Cape Town having been obtained among other articles’ (Wilmot, 1892: 91)

Despite the limited facilities at all three railway workshops in the Cape Colony, Wilmot noted further that:

‘The building and remodelling of carriages are extensively carried on at Salt River and Uitenhage, and at East London, so far as the limited workshops room and appliances will permit’ (Wilmot: 1892: 92)

Comparatively, the Railway Workshops at Salt River, Uitenhage and East London would at the time have constituted among the largest metal and engineering establishments in the Cape Colony. Drawing from Webster’s earlier remarks that the engineering industry prior to 1900 consisted mainly of repair shops and blacksmiths’ shops, the process of coordinating the training provision within these enterprises would have been extremely rudimentary. With the exception of the railway workshops which operated with a comparatively large staff complement for the period, industrial training provision would have depended on master owners or journeymen artisans giving on-the-job instruction and guidance to apprentices and young men. Most of these apprentices and young men would have had incomplete schooling. Thus the on-the-job training provided through this format would have been ad hoc and inconsistent: it would have been excellent at a few establishments but largely deficient at the majority of establishments.

Large establishments such as the Railways would have been encouraged to establish their own company schools to systematise the instruction and training of apprentices in their employ. But even such large enterprises would have clamoured for state assistance to get their internal company schools going, if this was possible. Therefore, in the main, we can advance the proposition that the need for workplace industrial training would have largely galvanised the demands of the private business sector of the economy for greater financial assistance from the state. This occurred in all the post-Anglo-Boer war colonies. State assistance would also give access to the less prominent sections of the private sector to access these training facilities for their own corporate needs. The evidence from Pittendrige (1988) suggests that the above paradigm of railway workshop technical training was not at all farfetched:

‘The first technical classes for apprentices were started by the Natal Government Railways in the railways workshops in Durban in 1884. The Cape Government Railways established classes at the Salt River Works in 1890, Uitenhage in 1895 and East London in 1902 and railway apprentice classes were started by the Central South African Railways in Pretoria in 1902 and in Bloemfontein in 1904. Typical subjects being taught at the stage were machine construction, practical mathematics, carriage building and sketching (Pittendrige, 1988: 108, drawing from evidence in the 1912 Union Government Financial Relations Commission Report).

A similar need for the internal training of its own specific staff was also evident in the mining industry. Thus, in 1894 the Cape Colonial government (with Cecil John Rhodes still Prime Minister of the Cape Colony), encouraged the establishment of a physics laboratory at the South African College in Cape Town to provide for the training of mining engineers. Two years later in 1896, the School of Mines was established at Kimberley (Pittendrige, 1988: 109). In 1897, all apprentices employed at the De Beers diamond mining company were obliged to attend compulsory evening classes at the School of Mines. As the need for further technical education expanded on the Witwatersrand, the School of Mines with all its students was transferred from Kimberley to Johannesburg in 1904. It became known as the Transvaal University College in 1906, the School of Mines and Technology in 1910 (after the Transvaal University College was moved to Pretoria). The name of the School of Mines and Technology was changed to the University College of Johannesburg in 1920 and finally the University of the Witwatersrand in 1922 (Pittendrige, 1988: 109).

What the above evidence highlights are the circumstances which elevated the industrial training needs of the private market economy as an important item on the national agenda. Aspects of these industrial training needs of the existing profit driven economy was important for more specialised engineering educational needs as well as for the technical and industrial education requirements of a broader spectrum of technical and artisanal labour that would work under the direction and supervision of engineers and managers. The analysis does not however mean that the industrial training needs for employees that worked for the state or broader public sector was less important¹⁹. Nor was this the case for those employed within the non-profit or voluntary sector (e.g. industrial education provision driven through philanthropic initiatives or through the work of religious institutions). It just meant that the industrial training requirements of this segment of the population received less prominence at the time than was accorded to the firms and enterprises in the profit driven sector of the economy.

¹⁹ Horton (1968) for instance discusses some of the forces that were arrayed to provide for the schooling needs of mainly English immigrant children in Johannesburg through the Council of Education.

5.5 Shifts in the Control of Training and the Emergence of State Intervention in Training

With the formation of Union in 1910 which incorporated the four colonies into a unified national state, there was a concerted effort to consolidate and build an efficient centralised South African state. Government Commissions of Inquiry performed a prominent role in investigating and advising state administrators and the bureaucracy on how best to institutionally design the machinery and organise the new state formation. In November 1911, Francois Stephanus Malan, the minister of education in the Louis Botha cabinet, convened a conference on technical, industrial and commercial education in Pretoria. The conference was attended by 29 individuals among whom were ‘four Provincial Directors of Education, representatives of various technical institutes, the Secretary of the Cape Town Chamber of Commerce, the Secretaries of the Departments of Justice, Agriculture and Mining, and a representative of the SA Railways Administration’ (Pittendrige, 1988: 111 cites the Conference Proceedings which was published by the Government Printing and Stationery Office). In his opening address, the Minister gave two reasons for holding the Conference. These were:

- ‘(1) to stimulate and encourage the interest taken in industrial and technical education;
- (2) to try and coordinate the activities now apparent in the different parts of the Union, and to evolve a uniform system so as to make it more effective and useful’ (Union of South Africa, U.G. 21/1913, p.4 quoted in Pittendrige, 1988: 112)

At the 1911 Conference, Professor Snape – a professor of Civil Engineering at the South African College in Cape Town – read a report evaluating the quality of apprenticeship training at industrial workshops of engineering and manufacturing establishments and firms in South Africa²⁰. After demonstrating mastery of specific craft or artisanal tasks, apprentices with talent and inclination were often assigned to carry out the machine production of these craft tasks, usually for long stretches of their training period. Without being trained and rotated periodically, to different craft job tasks, their training stalled and the skills they could absorb was narrower. Instead, Professor Snape argued that it was much better for the apprentice to:

²⁰ At the turn of the twentieth century the term ‘industrial workshops’ was used to designate engineering and machine shops. Typically, such engineering and machine shops indentured apprentices were trained on-the-job.

‘receive a preliminary training from tradesmen, whose main purpose is to teach, in small shops where he will get thorough instruction in general work on the lathe, drill, shaper and planning machine. This is the purpose of a trade school, and it is believed that boys who have received such groundwork when they enter the works, will know the elementary principles of engineering, will be able to pick up knowledge faster, and will do their work with less trouble to their employers’ (U.G. 2/1912, p.14).

The Committee on Industrial Education expressed the same sentiment five years later in the following terms:

‘It is a common complaint that a learner who shows skill in one process is kept working at that process for an undue period, this plan making him for the moment better worth his wages and saving the foreman from the trouble of instructing him in fresh work’ (U.G. 9/1917, para. 129)

The Minority Report of the Railway Commission of Inquiry of 1914 drew evidence from a deputation of boilermakers in Pretoria blaming the piece-rate system, then in existence in South Africa, for contributing to this condition. As J.M. Nield, author of the Minority Report noted from the evidence:

‘A deputation of boilermakers at Pretoria said:

“There are thirty boilermakers and twenty apprentices in the boiler shop. Apprentices should not be put on piece-work, because they are taught to specialize and do not therefore learn their trade thoroughly. An apprentice would be shown anything on day work, but while on piece-work he is given all the rough work. If the journeyman does all the smooth work, how is the apprentice to learn his trade? The apprentices in the boiler shop look like old men before they are twenty years of age. The price of piece-work is based on a mechanic’s pace, and the apprentice has to keep pace with him”’(U.G. 50/1914: *Minority Report*, p.153)

In addition to the piece-rate system, the quality of training then prevalent in the Railway Workshops also came under damning criticism from the Minority Report to the Railway Commission of Inquiry. Mr Seymour Hosley who at the time was attached to the Technical Institute at Pietermaritzburg, conveyed to the Commission of Inquiry the following impression which firms held about the training that apprentices received at the Railway Workshops in Natal:

‘Things have gone so far that firms outside the railway will not employ men who have been trained in the railway. I was asked by one young man, just out of his apprenticeship, if I could get him something better. I made enquiries, and one gentleman told me point blank that the training on the railway was no use to him, and he would not take on a boy who had been trained there’(U.G. 50/1914: *Minority Report*, p.153)

The thrust of Professor Snape's report put forward the argument that because of operational imperatives, establishments with industrial workshops in South Africa that took on apprentices to be trained were often unable to adequately perform this task. Such a task would be better undertaken in Professor Snape's judgement by trade schools, where 'boys who have received such groundwork when they enter the works, with the elementary principles of engineering, will be able to pick up knowledge faster, and will do their work with less trouble to employers' (U.G. 2/1912, para.14). Once they had attained a critical foundation that could be built upon in terms of technical knowledge and skills, they could continue to expand this knowledge and skill during evening hours at a technical college or technical institute. Professor Snape was quite emphatic about the argument which he sought to advance:

'I strongly think that this model offers a solution of the difficulties of training apprentices in modern, highly organized shops. The old-fashioned apprenticeship system is breaking down in Europe and America, and this system is taking its place with splendid results. The youths are keener, more intelligent, better instructed, and obtain a better grasp of their trade. Well-known employers in the Transvaal have stated that only by some such means as this can youths be properly trained. There is still a certain amount of prejudice against these schools, as well as against technical education generally, and great good would be done if the Government were to give boys passing through these schools the preference in their own works. The battle for technical education in Europe and America has been fought and won, but this is not so in South Africa, though the advance made is very great when one considers that it is less than ten years' growth. The success of a school of this kind, depends almost entirely upon the method of teaching, and the tact with which the objects of the school are asserted' (U.G. 2/1912, p.14).

The Majority Report of the Railway Commission of Inquiry expressed similar sentiments. In fact the report submitted evidence from Mr Hosley, Principal of the Technical School at Pietermaritzburg, whom I have mentioned above, who proposed a scheme to advance the training of apprentices. As the Commission noted in invoking Mr Hosley's evidence:

'He stated that according to the highest authorities it is essential that apprentices should be instructed in the practical and theoretical sides of the work conjointly, and suggested that for the first two years the apprentice should attend school in order to be thoroughly instructed in his trade. The work which he would do in the school should be supplied from the workshops and the material sent with it and charged to the job; when complete the work would be returned to the Government stores and valued in the ordinary way by the Government. The workshop of the technical school would be regulated exactly as an ordinary industrial workshop, excepting that the objective would be instruction, not profit.

‘The advantage claimed for this system were briefly: that the workman could devote his attention to his work and the apprentice would receive individual instruction in all positions of his work, while the work turned out would be of value to the Government as a return for the outlay’ (U.G. 50/1914, para. 192)

The argument which Professor Snape raised in 1911 was emphasised again in the Industrial Education Commission of 1916 but this time it was suggested that attendance at a Trade School should be a precondition for admission to apprenticeship training programmes:

‘In engaging learners or apprentices, preference should as a rule be given to those who have endeavoured to prepare themselves by work at a vocational school. If this had been a Trades School, the lad will already have acquired facility in the use of hand-tools, and some knowledge of trade processes. This will materially shorten the period during which the learner is practically valueless as a wage-earner. He will be familiar with the atmosphere of a workshop, and can be made useful at once. Recognition ought to be given to such preliminary training both in wages and in shortening the period of apprenticeship. The boy coming from a Technical Day School will not have the same practical knowledge but will have received a wider general education, and at the same time have learned to use hand-tools. One of the greatest needs in the young apprentice is the power to learn for himself without an undue amount of supervision, and this power should be developed in the boy from the Technical Day School or the High School. Any previous education which has led the pupil to read for himself and to think and reason for himself will be of advantage to the employer, and should be recognised by him accordingly’ (U.G. 9/1917, para. 128).

From the inception of Union, the state showed a keen interest in the progression of industrial education in South Africa. The 1911 Conference served as a rallying point for the advance of technical, industrial and commercial education in South Africa. A later Commission of Inquiry proposed making a distinction between industrial education and technical education, which it claimed was ‘difficult to define, but generally industrial education is intended for the mechanic and artisan, technical education for the skilled craftsman and professional man’ (U.G. 9/1917, para.2). At the time, a greater part of the cost of technical instruction was being borne by the state (U.G. 9/1917, para.127). There were numerous cases in which industrial education was either being supported or initiated through the efforts of different provincial education departments in the Union (U.G. 9/1917, para. 13-31). In addition to this, four government Departments controlled vocational schools. These included: The Department of Agriculture, the Forest Department, the Department of Mines and the Prisons Department (U.G. 9/1917, para. 32). There was the understanding that state support for instructional costs would be balanced by employers carrying the workshop training costs of the apprentices and young workers in their employ. This is how the Report of the Committee

on Industrial Education understood the shifts taking place with an expression of the state's position on the matter in 1917:

‘In old times the employer was responsible for the whole of his apprentice’s training, and this was given during working hours; it is now recognised that under modern conditions much of the training cannot be given in the workshop, and the State undertakes the greater part of the costs of lecture-room and laboratory instruction’ (U.G. 9/1917, para. 130).

It is quite clear that the state played an instrumental role in strengthening technical, industrial and commercial education from the inception of Union in 1910. The agenda which the Minister of Education postulated at the 1911 Conference was hardly subjected to extensive scholarly scrutiny, yet it represented a fundamental turning point in South Africa’s history of technical, industrial, vocational and commercial education. The apprenticeship system was a vital component to this history. The quest of putting into place a system ‘to try and coordinate’ as Minister Francois Malan indicated was even lost to astute commentators of the apprenticeship system. Kooy (1952) for instance appeared to be side-tracked by evidence recorded by Commissions of Inquiry concerning employer evasions of regulatory obligations and alleged abuses and exploitative behaviour towards youth and apprentice labour. This was merely a universal response from employers to prolong the use of cheaper wage rates that applied to learners and apprentices. By avoiding paying the regulated wage rates for senior apprentices and journeymen, simply meant that many employers responded to basic economic self-interest. This suggested reluctance to uphold the principles that rewarded those that incrementally moved up formally to a higher skill status. However, such underhand practice from employers was not unique to South Africa. A vast record of evidence can be assembled wherever apprenticeship systems existed about employers shirking their training responsibilities and attempting to exploit for longer than permissible the lower wage rates applicable to apprentices and learners²¹.

In partially postulating reasons for the promulgation of the Apprenticeship Act in 1922, Frederick van Biljon (1939) suggested that it was a calculated response to contain the purported power which the trade unions had gained historically through the apprenticeship system. Perhaps, this echoed evidence gleaned from the 1935 Industrial Legislation Commission which asserted that:

²¹ See Honeyman (2007) for the experience of Parish apprentices in the English clothing and textile industries between 1780 and 1820. Compared to the South African experience in the 1920s and 1930s the exploitative conditions of the Parish apprentices in this period in England can only be described absolutely horrendous.

‘The number of apprentices was regulated largely by the influence the trade unions were able to exert; ratios of not more than one apprentice to four and five journeymen we, were informed, are common’ (U.G. 37/1935, para. 691).

Understandably, while the initial Union Commissions of Inquiry preceded from the premise which acknowledged the importance of the state’s role in regulating but also shouldering responsibility for some of the operational and infrastructural costs for industrial training and technical education, these Commissions also emphasised the importance which both employers and employees (as trainees and learners) were meant to fulfil by ensuring that the specific objectives of each was met. Employers were expected to train the apprentices and trainees indentured to their firms. This obligation was to remain ongoing for the duration of their contracts. Similarly, expectations of meeting strict learning and training objectives were also meted to apprentices and trainees. This encompassed the motivation to learn while earning a wage. Employers also had the discretion to select apprentices who demonstrated an inclination towards fulfilling their training obligations (see U.G. 9/1917, para. 128 & 130).

Van Biljon therefore claimed that the Act ‘deprived the trade unions of the assumed power to stipulate the ratio of minors to journeymen in certain skilled trades’ (van Biljon, 1939: 231). Nonetheless he was also correct in recognising the importance of Apprenticeship Committees as bodies that ‘were brought into being to determine the appropriate conditions of apprenticeships and to recommend the registration of contracts to the Inspector of Apprenticeship’ (van Biljon, 1939: 231). The new system established apprenticeship committees on the one side which would operate in tandem with the Technical College and Trade School system at which apprentices were required to attend technical classes on the other side (van Biljon, 1939: 232).

The argument that is advanced in this thesis is that there was a fundamental shift in the orientation of the state with the passage of the Apprenticeship Act in 1922. It made provision for apprentices to attend trade school as a precondition for the completion of an apprenticeship. It also established the rule that firms would obtain apprentices on condition that they had adequate facilities to train them (Lewis, 1984: 26). In fact this shift preceded the promulgation of the Apprenticeship Act. In 1921, the Juveniles Act was passed. This Act made provision for the establishment of Boards to deal with matters affecting juveniles that had left school but were still in limbo and were not yet absorbed into a fixed job or more permanent occupation. The Juvenile Boards dealt with matters that had a bearing on the

employment, training, welfare and supervision of juveniles (U.G. 14/1926, para. 76). Thus the introduction of 'Boards' was an important institutional breakthrough when the Apprenticeship Act was promulgated the following year.

When the Apprenticeship Act was passed in 1922, the institutional body which the Act established to regulate the apprenticeship system within designated industries and to regulate apprenticeship contracts and employment conditions was known as the 'Apprenticeship Committee'. Several of these were initially established but the intent was that new Apprenticeship Committees would come into operation as the need arose. The Apprenticeship Committees were essentially institutional bodies that were assigned the task of coordinating the apprenticeship system. While similar coordinating bodies that had been established through the Juveniles Act were known as Juvenile Boards, under the Apprenticeship Act, these coordinating bodies were known as Apprenticeship Committees.

5.6 Apprenticeship Committees as Coordinating Mechanisms

The Apprenticeship Committees had the responsibility for setting the wage scales of apprentices for the successive years of the period of their indenture (U.G. 14/1926, para. 76). At the beginning in the 1920s this was typically five years. From the inception, three Apprenticeship Committees were national committees. These national committees dealt with apprentices under: the Railways and Harbours Administration, a second dealt with all other government departments and the third was responsible for the entire Printing and Newspaper industry in South Africa. Apprentices in the remaining industries were under the jurisdiction of a local or provincial apprenticeship committee. These industries included: Boot-making, Building, Clothing, Carriage Building, Electrical Engineering, Food (which comprised Baking, Butcher and Milling), Furniture, Leather working and Mechanical Engineering.

Thus at the time that the *Economic and Wages Commission* heard evidence in 1925, five Apprenticeship Committees had been set up in the engineering industry 'for the Transvaal, the Cape Peninsula, Kimberley, Durban and Port Elizabeth' (U.G. 14/1926, para. 76). The Building Industry had undergone a similar process with apprenticeship committees having been set up 'for the Witwatersrand, Cape Peninsula, Kimberley, Durban, Port Elizabeth, East

London, Pretoria and Pietermaritzburg' (U.G. 14/1926, para. 76). An Apprenticeship Committee had also been established in the furniture industry for the Cape Peninsula. Although Apprenticeship Committees were scheduled (meaning that its eventual establishment was a certainty), when the Commission reported these had not yet been set up in the following industries: clothing, leather, food and carriage building. The Commission however noted that Apprenticeship Committees were likely to be set up at an early date for the clothing industry and the leather industry on the Witwatersrand and at Port Elizabeth (U.G. 14/1926, para. 76).

Two problems permeating the entire apprenticeship system which the apprenticeship committees had not yet been able to address was however identified. The first was the comparatively high apprenticeship to journeymen pay scales. This was seen as a threat to the 'creation of more opportunities for the white youth of the country in skilled employment' (U.G. 14/1926, para. 79). High apprenticeship wages were a deterrent to engaging apprentices. It was also a deterrent to their effective training because there was greater pressure on firms to recoup high wages with productivity gains compared to low wages paid to incumbents in training. In the opinion of the Postmaster-General who gave evidence before the Commission, the "salary or wage paid to the South African youth in the early years of his career is in many cases too high" (Postmaster-General cited in UG 14/1926, para. 79). The second was the remarkable divergences in wage rates set by the apprenticeship committees between regions in specific industries. From the evidence to the Commission, the following pattern to apprentice regional wage variations was established:

'Thus, a building apprentice in his fifth year is paid 75s. a week on the Witwatersrand, 90s. in Pretoria, 55s. in Cape Town, 65s. in Durban, and 40s. in Port Elizabeth; the starting rate (after six months' probation) is 10s. in Port Elizabeth, 15s. in East London, 20s. on the Rand and in Durban, and 22s. in Pretoria. A printer's apprentice's starting rate varies from 20s.9d. (at Cape Town) to 26s. (on the Rand). An engineer's apprentice starts from 10s. (at Cape Town) to 18s. (at Durban) and in his last year reaches from 40s. to 60s.' (U.G. 14/1926, para. 81).

A representative from the Building Apprenticeship Committee who appeared before the Commission said in mitigation that these high regional divergences merely followed prevailing practice at the time the scales were drawn up. The Commission contended however that it 'had evidence that some of the rates diverged widely from previous practice' (U.G. 14/1926, para. 81). The Commission suggested in the light of the limited response that

Apprenticeship Committees were able to exert, the problem merited further consideration which it argued was a coordination problem:

‘There would appear to be room for more co-ordination between different districts in the same industry, and even more important, between apprenticeship committees in different industries. It would be advisable for the chairman of all the apprenticeship committees to meet at regular intervals and endeavour to ensure co-ordination between the different industries and districts’ (U.G. 14/1926, para. 81)

It was a coordination problem because it had an impact on the supply of apprentice labour, even though it was almost exclusively white apprentice labour. The Commission suggested that since the Wage Board was ‘likely to be the principal co-ordinating authority in wage matters’ that it would indeed be ‘desirable that the chairman or another permanent member’, participate in the conferences with the chairmen of all the apprentice committees (U.G. 14/1926, para. 81).

At the end of December 1934, thirty-five Apprenticeship Committees had been established and operated in the following industries as shown in Table 5.1 below:

Table 5.1: Apprenticeship Committees active as at 31st December 1934

Industry	Number of Committees
Banking and confectionary	2
Building	8
Building, electrical, mechanical and motor engineering	1
Building, furniture, mechanical and electrical engineering	1
Carriage building	1
Dental mechanics	4
Furniture making	1
Government (building and engineering)	1
Hairdressing	2
Leather-working	3
Mechanical and electrical engineering	4
Mechanical, electrical and motor engineering	2
Mechanical, electrical, motor engineering and carriage building	1
Motor	1
Printing	1
Railway and Harbours Administration (building; engineering and carriage building)	1
Transvaal Mines (building, mechanical and electrical engineering)	1
Source: Report of the Industrial Legislation Commission (U.G. 37/1935), para. 708	

The competence and energy of the individuals appointed onto apprenticeship committees was an important factor to the way these committees executed their responsibilities. As bodies responsible for advising the Minister of Labour on apprenticeship matters, each committee

had to have at least five members and an independent chairman who was not necessarily from the industry. The employers' organisation and trade union had an equal number of representatives. The Minister had the right to discharge committees which could not perform its functions and instead vest these functions in the Inspector of Apprenticeship (U.G. 37/1935, paras. 699 & 709). Inappropriate individuals often got appointed onto apprenticeship committees. Where this occurred, it inhibited the coordinatory functions of Apprenticeship Committees. As the evidence of the Industrial Legislation Commission showed:

‘In one instance, a trade union actually appointed as representatives, minors still serving under indenture.’ (U.G. 37/1935, para. 715)

It was also claimed that in many cases ‘contracts of apprenticeship were granted to unsuitable employers whose importunity eventually broke down the better judgement of committees’ (U.G. 37/1935, para. 715). Independent chairmen of apprenticeship committees who could only exercise a vote to avert a deadlock were not able to prevent this from happening.

As was indicated earlier, the National Printing Apprenticeship Committee was a national committee. It was also the only private industry apprenticeship committee which held such a jurisdiction and function. It was also viewed as a highly successful apprenticeship committee. This success was attributed ‘largely to the fact that both employers and employees are highly organised and the number of establishments is not so large as to prevent the personnel of the committee obtaining a fairly good idea of conditions prevailing in each of them.’ (U.G. 37/1935, para. 717)

National apprenticeship committees had a higher capability than local or regional committees to establish common national policies which overcame local parochial interests (U.G. 37/1935, para. 718). A common policy could therefore evolve in respect of ‘the designation of trades, entrance qualifications, the period of apprenticeship, technical training and lines of demarcation between industries’ (U.G. 37/1935, para. 718). Local apprenticeship committees had the potential of pursuing contradictory policies which could lead to ‘one committee destroying the work of another’ (U.G. 37/1935, para. 719). Where the number of apprentices was small the burden of administrative costs on national apprenticeship committees could potentially be heavy (U.G. 37/1935, para. 720). The Report of the Industrial Legislation

Committee again reiterated the importance of coordinating the work of local apprenticeship committees:

‘We do not advocate national committees for all industries, but as associations of employers and employees develop along national lines, the advantages or otherwise of setting up more national committees should be explored. In the meantime there is a definite need for coordinating the work of local apprenticeship committees for the same industry, and the advisability of creating a special committee consisting of, say, two representatives from each committee for the purpose should be considered. Such a committee need not meet at frequent intervals once important questions of policy have been determined’ (U.G. 37/1935, para. 721).

Even as early as the 1930s, instances were recorded of overlaps in the jurisdiction of apprenticeship committees and industrial councils, even though both institutions were regulated through separate statutes. In particular this involved the control of minors into skilled trades. As the Industrial Legislation Commission of 1935 observed:

‘This is done by councils, firstly, requiring employers under the agreements [P.L. industrial council agreements], either to apply for permission to employ a minor in a designated trade or to fix a ratio between such minors and journeymen, and secondly, prescribing wages and other employment conditions for unindentured minors’ (U.G. 37/1935, para. 738).

Despite having established quite an elaborate formal architecture for apprenticeship training in South Africa in which apprenticeship committees had by 1935 been in existence for about a dozen years and were accorded an important coordinating function, the evidence presented before the Industrial Legislation Commission was not terribly flattering. As the Commission reported:

‘Many witnesses representing industrial councils and trade unions unhesitatingly assert that a very large proportion of apprentices in industry are not being properly trained. One witness fixed the proportion as high as 75 per cent. This state of affairs was attributed to a variety of causes, inter alia –

- (a) to inadequate equipment of workshops (or no workshops at all in the case of some employers in the building industry);
- (b) to a lack of interest on the part of employers;
- (c) to lack of qualified journeymen or supervision by journeymen, or inability of journeymen to communicate knowledge;
- (d) to limited scope of work available;
- (e) to minors being kept too long on particular operations, often of a minor character;
- (f) to temperament of apprentices;
- (g) to unsuitability of apprentices for the trades chosen;
- (h) to feeling of security on the part of apprentices after indentures are signed;
- (i) to lack of power of concentration and to irresponsibility on the part of apprentices at their work and at technical classes;

(j) to lack of discipline among minors.’ (U.G. 37/1935, para. 761)

The above conditions contributed to the establishment of the National Apprenticeship Board which had a wider coordination purview than individual apprenticeship committees. While not displacing the apprenticeship committees, the National Apprenticeship Board would thus appropriate and centralise a significant portion of the coordination function of individual apprenticeship committees.

5.7 Strengthening Coordination through a national Coordinating Structure: the National Apprenticeship Board

After being amended in 1924 and again in 1930, a new Apprenticeship Act was promulgated in 1944 (HSRC & NTB, 1984: 15-16). A major institutional design feature in the 1944 Apprenticeship Act was provision for a National Apprenticeship Board. The Board had more supervisory and recommendatory powers which enabled it to ‘coordinate the activities of the local apprenticeship committees’ (U.G. 65/1948, para. 1116). It was given the responsibility of advising the Minister of Labour on matters which he may take action in terms of the Act and ‘on such matters as the Minister may refer to it’ (U.G. 65/1948, para. 1116).

The Apprenticeship Board was composed of the Minister of Labour who served as chairman and ten other members appointed by the Minister. The ten other members consisted of the following:

- a) ‘one shall be the Secretary of Labour and one the Registrar (of apprentices);
- b) two shall be nominated by the Minister of Education for their knowledge of matters relating to technical training;
- c) two shall represent the interests of prospective apprentices in or from rural areas;
- d) two shall be appointed for their special knowledge of matters relating to apprenticeship; and
- e) one shall be appointed from a list of persons nominated by such organisations as the Minister may deem qualified to represent the interests of employers, and one similarly selected to represent the interests of employees.

The Minister may also in a similar manner appoint an alternate to the members of the Board. The Secretary for Labour is deputy chairman.’ (U.G. 65/1948, para. 1117)

Since neither the Minister, nor the Secretary of Labour, could find the time to attend the meetings of the National Apprenticeship Board, the Apprenticeship Act (1944) was amended

again in 1951 to allow the Registrar of Apprentices instead to serve as the chairman of the Board. The 1951 amendments also followed the recommendations of the De Villiers Commission and made provision for 'day release' technical classes and qualifying trade tests (HSRC & NTB, 1984, para.1.39).

The National Apprenticeship Board certainly bore some resemblance to future institutions which would ostensibly embody its functions, namely the National Training Board of 1981 and the National Skills Authority of 1999, even though both would be established under different contexts and under different legislation. This narrative will be explored in the next chapter of this thesis.

The 1948 Commission of Technical and Vocational Education (often referred to as the De Villiers Commission) elevated enterprise size as one of the most fundamental cleavages in the apprenticeship training system. It was seen as a strong rationale for an overt role by the state in classroom instruction for apprentices. From the beginning of the 20th century when railway and mining firms were the only enterprises to have their own workshop training schools for practical instruction up until the twenty-first century where the bulk of firms in for example the metal and engineering industry continued being too small to have their own training schools, the cleavage was evident. The reason for this was really quite simple. The size of the industrial enterprise or establishment set limits on the internal training infrastructure of firms. Quoting the most recent industrial census data at the time, the Commission on Technical and Vocational Education observed:

'According to the latest industrial census only about 125 manufacturing concerns have more than 500 employees. As in-service training in the thousands of small-scale industrial establishments is not likely to overcome its present limitations, South Africa will perforce be more dependent on its educational institutions for systematic vocational training than is the case in such industrial countries as Great Britain and the U.S.A.' (U.G. 65/1948, para. 1058)

The limited enterprise size of 'industrial establishments' in the country meant that most establishments were dependent on outside workshop school training schemes for the training of their skilled labour, including their apprentices. Until this time the state was only able to provide theoretical class-room instruction to apprentices and other skilled labour through the technical colleges which were subsidized from state revenues. The Leather Industry did however develop an institutional relationship which was not under state control. This

relationship emerged between the Leather Industries Research Institute (LIRI) and the technical college at Port Elizabeth for the benefit of the Leather Industry in the region as a whole. But the Leather industry had a predilection for training under learnerships instead of apprenticeships.

Since the state already played such a pivotal role in the apprenticeship system, through the provision of regulations (with the Apprenticeship Act and its numerous amendments), through shaping coordinating institutions, albeit in a nascent and emerging form (e.g. Apprenticeship Committees and the National Apprenticeship Board) as well as through the examining body to the trade theory subjects for apprentices (via the Department of Education), the extended role for the state was equally prominent in the periodic legislative amendments that ensued. The proposal for trade testing which the De Villiers Commission put forward would lead to this being assigned to the National Apprenticeship Board and after 1951 with its implementation to the Central Organisation for Trade Testing (COTT). It was therefore unlikely in the post-war period that workshop training schools in general would have been established without the involvement of the state. The few in-house enterprise workshop training schools were likely to be found only among the largest enterprises in the country. The De Villiers Commission elegantly confirmed that the state was intent on securing complete control over the entire education system in South Africa. The Commission suggested that the principal was for it to be a centrally controlled and administratively decentralised system that would extend into regions or units. But since it was not yet feasible to implement such a system of central control with administrative decentralisation, a more elegant solution was suggested:

‘The control of all education by a single centralised authority appears, however, to be for the present at least, impracticable. The Commission has, therefore, turned to a more feasible solution of the problem of divided control, namely the creation of a co-ordinating authority or council for education.’ (U.G. 65/1948, para. 2022)

This quest to coordinate and eliminate duplication applied equally to the technical vocational education sphere.

‘This need is, however, particularly clamant in the case of vocational education which is linked up with industry, commerce, agriculture and labour, all activities which are administered by Union Government Departments. A uniform, elastic and flexible system so essential in this field would only be possible under unified control’ (U.G. 65/1948, para. 2025)

This section brings to a close the historical narrative of enterprise coordination through the involvement of the state to improve the functioning of the apprenticeship system. As was shown, this coordination function occurred through apprenticeship committees. It was subsequently strengthened by according the National Apprenticeship Board greater policy and regulatory powers to coordinate the process of enterprise skill formation.

5.8 A Brief Historical Overview of Intervention by Professions and Professional Organisations to confront the Labour Supply Problem and shape the Coordination of Enterprise Training in South Africa

In this section, I shall reflect very briefly on the involvement of intellectuals and professionals through various measures and institutional vehicles to improve and increase the scope of the fields influencing enterprise coordination in South Africa, particularly the coordination of skill formation and its supply. These measures made use of new forms of applied knowledge to give the process a more rational and calculated grounding. It also anticipated and represented nascent disciplines that started making a representation of its power to chart new directions in the field. Ultimately, it had the potential to enhance the overall coordination of enterprise skill formation.

5.8.1 The Problem of Labour Supplies

Prior to the Second World War, human resource development in South Africa had not yet evolved into a discipline with a formalised strategy. It tended to be a discursive and often ad hoc process held by many threads but still preoccupied with the question of securing skilled labour supplies. The structure of the existing labour force meant that there was only a limited internal supply of skilled labour in the South African labour market²².

Even modest demand for skilled labour was likely to constrain existing supplies. This encouraged state authorities to explore other avenues to secure skilled labour. At the time, the most prominent medium that the state used to expand the supply of skilled labour nationally was through an immigration policy (Smith and Byron, 1941). Despite restrictive prohibitions from the Immigration Board on admission of ‘aliens’ into South Africa, the skills

²² The tacit embodiment of skills in the general population was a great benefit to small firms and small scale industries and is often under-estimated.

demand that was beginning to be placed on industry during the 1930s led to higher levels of importation of white skilled labour from overseas countries such as Britain, Germany, Holland and Canada (Smith and Byron 1941: 255-256). It was also recognised that the entrance of female workers into the labour force as well as the growth of an African labour force existed as possibilities that could conceivably be harnessed in the future to address this problem. Similar problems had already been encountered in the United Kingdom and there consequently existed a record of conceptual attempts in which elements of a more responsive and systemic labour supply intervention was beginning to be conceived. Hence, the knowledge of experiments elsewhere to address these was slowly percolating into the public domain. Borrowing such 'successful' lessons seems to have consciously started in the 1930s and has continued within South African public policy ever since.

5.8.2 Applied Psychology

The results of experiments in industrial management at the enterprise or firm level naturally followed the work of Frederick Taylor. Soon after the impact of the work that Taylor undertook to improve labour productivity had begun to gain broader recognition and prominence, especially in the United States, coupled with reaction to the influence of his disciples, applied psychologists began to demonstrate that the limited perspective and knowledge of production engineers (who were generally spell-bound by the impact of Taylor's work) had limitations. These limitations did not sufficiently address the personal attributes of workers. It was seen to constrain the productivity of labour. In contrast, the applied psychologists showed that the motivation, organisation and efficiency of the labour force could be radically enriched by the knowledge and applications of applied psychology. Biesheuvel (1954) provides an apt interpretation and summation of the process.

In 1929, referring to the divisions which constituted applied psychology, Gardner Murphy (1929) noted that vocational guidance became a distinct social movement from about 1910. It a compulsion which educators had to take into account because a minimum standard of intelligence was demanded in each occupation. According to Murphy it was therefore taken for granted that:

‘an intelligence test must be administered and that the applicant should be saved both from the attempt to enter a career in which he would almost certainly fail, and from the idle acceptance of a level beneath his capacities. Employment psychology, recognising the same principles, rejects applicants whose intelligence predicts failure

in the position sought, and in some cases discourages applicants whose intelligence is so high as to render it improbable that they would long remain in a given position' (Murphy 1929: 373)

Intellectuals who were the pioneers of the discipline – in an attempt to advance their disciplinary interests – set about organising themselves into more robust organisational formations. Thus the National Institute of Industrial Psychology was founded in Britain 'on an entirely voluntary basis in 1921' (Myers, 1933: 15). Among the principle objectives of the National Institute of Industrial Psychology (NIIP) according to Myers was that it would:

'... carry out investigations at the request of individual industries or firms or (as in the case of vocational guidance) on behalf of individual persons, to train and to promote the training of investigators in industrial psychology throughout the country, and not only to carry out research in the subject but also to spread a popular knowledge of such research and to indicate the value by lectures to employers, managers and workers, as well as by publications'(Myers, 1933: 19-20).

In 1930, a Scottish Division of the NIIP was established with headquarters in Glasgow (Myers, 1933: 20).

A prominent corresponding intervention in this process of social engineering in which elements of future human resource benefits were clearly visible emerged from Binet's work in 1904 on intelligence testing. While the intelligence testing movement was later strenuously taken up and propagated within industry, its first incursions within South Africa occurred within the educational sector. Ernest Malherbe was a key actor to this process. Building on his post-graduate work at Columbia University in New York in the 1920s and using his experience as a commissioner on the Carnegie Commission into Poor White poverty, he was instrumental in the establishment of a research body within the South African Union Department of Education known as the National Bureau of Educational and Social Research (NBESR) and was appointed its first director in 1929 where he remained until 1939 (Malherbe, 1981). As well as undertaking research and collecting statistics from provincial education departments, the NBESR also carried out intelligence testing to identify social problems that had an impact on the educational participation and progress of white children (Fleish, 1993). As a forerunner to the Human Sciences Research Council (HSRC), the NBESR was perhaps the first initiative to establish a programme of applied educational psychology in South Africa. Statistical collection and analysis as well as psychometrics and intelligence testing was an important part of its programme. Significant parallels can be observed in the manner that applied industrial psychologists and applied educational

psychologists proceeded to contribute from the vantage point of a disciplinary competence to the broader challenges of a future labour supply in South Africa.

5.8.3 Sociologists and Human Resource Development Concerns

Sociologists too were engaged in investigating the new field of human resource development, which the labour supply problem had generally presented, but this was couched in terms of developing a sociological understanding of the participation of various social groups in the social divisions of labour which capitalist industrialisation and historical change in South Africa had inaugurated. In the period of the 1930s to the 1950s, a number of sociological investigations were conducted in South Africa, in the emerging sub-discipline of the sociology of work. Among such studies to be undertaken were those by Hansi Pollak on *Women in Watersrand Industries* in 1932, Erika Theron's *Fabriekwerkers in Kaapstad* in 1942, Valdo Pon's masters thesis on the *Social Investigation of Female Workers and a related study of their Absenteeism* in 1949, an investigation into *The African Factory Worker* by the Department of Economics at the University of Natal in 1950 as well as Ellen Hellman's study in 1953, titled *Sellgoods: a Sociological Survey of the African Commercial Workforce* (see Webster, 1981 who documents these studies). But just as was the case in the 1970s when sociologists had a significant presence in the expansion of disciplinary interventions that stemmed from the democratisation of South Africa's industrial and labour relations regime and again in the contemporary period of the 1990s where sociologists were central in putting a new human resource development framework in place (e.g. through NEPI), the disciplinary involvement of sociology was severely diluted once new institutions began to be constructed. In the latter instance, professional lawyers and human resource practitioners began to dominate the fields of industrial relations and human resource development. Consequently the sociological discipline itself viewed these processes generally with the preoccupation of critical investigators from a 'distance'.

From the beginning, the sociologists were simply not a match for the applied psychologists, that is, both the industrial and educational psychologists who were the anchors to these institutional arrangements and the intellectual custodians of the discourses and disciplinary knowledge that flowed from it²³. In the more recent period the labour economists and the

²³ In fact this gap seems to have widened even further with 'Work and Organizational Psychology' the new term by which Industrial Psychology has become known, establishing a level of utilitarian advantage in contrast to Sociology over a wide set of enterprise related functions and activities including training. Compare for instance

econometricians too, have increased their dominance over the sociologists in the area of research on the dynamics of the labour market. Sociologists with their more meta-theoretical interpretative approaches have not been effective at establishing institutional vehicles through which to advance their professional standing and simultaneously showcase the practical imperatives of their applied work as a social good which is supported through public funding. The disciplines which dominate the policy sciences are extremely effective in doing this.

5.8.4 Personnel Management

The emergence and growth of personnel management in South Africa can be traced to the 1940s. Unlike the two branches of applied psychology, that is, industrial psychology and educational psychology, personnel management was integrally linked to enterprise organisation and therefore quite directly with the coordination of enterprise skill formation. What it lacked in systemic oversight it gained through micro-institutional association with the enterprise. Bruce Kaufman (2000) traces the roots of personnel management to the writings of the early labour economists in the United States (i.e. John Commons, Paul Douglas and Sumner Slichter). While the influence of the economists on personnel management waned after the Second World War, personnel management was presented in Industrial Psychology as ‘applied psychology’ (Kaufman, 2000: 246).

Isobel White who had first gained industrial psychology experience in the United Kingdom assisted the Leather Industries Research Institute (LIRI) in Grahamstown in conducting personnel research (Louw, 1993a). White’s work at the LIRI and the recognition of building a cadre of personnel management practitioners who could work in industry resulted in Rhodes University offering a one year post-graduate diploma in Personnel and Welfare Management in 1944 (Louw, 1993a). According to Louw (1993a) this took place in either 1943 or 1944. The Personnel Research Section of the LIRI had responsibility for organising the practical training and lectures on the course while Rhodes University carried out the theoretical training. With the support of the Institute of Personnel Management in London, White was eventually drawn into setting up a Port Elizabeth branch which was given the status of a local branch of the mother body in the UK. In 1947, membership in South Africa was strong enough to form a South African Institute of Personnel Management with a membership of 147 (Louw, 1993a: 67).

textbooks on Industrial or Workplace Sociology with the following textbook from Industrial Psychology: Nik Chmiel (Ed.) (2000) *Introduction to Work and Organizational Psychology*. Oxford Blackwell.

5.8.5 Applied Psychology and its Military and Industrial Applications

The two world wars were testing grounds of the potential large scale uses that industrial psychology presented. The United States army in particular made extensive use of selection techniques in which soldiers were assigned to military jobs for which they were best equipped to serve. Aptitude testing was presumed to be the most efficient technique of matching individual abilities and potential with highly specialised tasks such as flying aircraft. Two psychologists, Walter Dill and Robert Yerkes oversaw much of this application of psychological methods to the war effort. According to Vorster (1967) over two million men were subjected to intelligence tests during this period in the USA alone. In other countries, similar techniques were used to select aircrews, drivers, submarine crews and so forth. These efforts were opposed by psychiatrists who reasoned that it was within their domain and competence to eliminate the unfit from the armed forces. Armed with intelligence testing, the psychologists gained success over the particular problems which the military establishment encountered but it also elevated their prestige within the business community where their techniques gained increasing applications after the war (See Louw, 1990 as well as Vorster, 1967). The Second World War meant that the emergency manpower classification process of the First World War was repeated on an even bigger scale.

South Africa's entry into the Second World War meant that particular prominent public and private firms within different industries were drawn into the manufacture of war materials (e.g. bomb shells, fuses, explosives, acetone, small arms spares and aircraft parts and radio equipment), provisions (e.g. canned meat and vegetables) and support supplies such as army boots (Martin and Orphen, 1979. See also in Martin and Orphen, *DGWS Annexure Factories and their Production* where a list is provided of firms and their factories that were involved in production of goods for the military establishment). The South African Railway and Harbour Workshops too played a prominent part in war material manufacture (Martin and Orphen, 1979: 138).

The massive increase in new output demand as a result of the war effort on the armed forces as well as within the industries that could potentially support these forces naturally created new challenges around labour supply. The challenge was about moving towards the efficient streaming and training of those selected for recruitment – particularly for military tasks and

operations. Flying aircraft was the most complex task within the armed forces and the training required as well as being of the longest duration, was also the most expensive. From a small peacetime nucleus, the country's participation in the war required it to build a larger air force. Although the Psychology Department at the University of Pretoria (Transvaal University College) had been involved with the Aptitude Test Section (ATS) of the South African Air Force prior to the war, Van Ryneveld who was chief of General Staff, approached Raikes, principal of the University of the Witwatersrand about whether it could set up a unit for the selection and classification of pilots (Louw, 1993a: 68). Simon Biesheuvel, a lecturer in the Department of Psychology was given the task of expanding the ATS and improving its aptitude selection and psychological testing capacity.

At the end of the War, the ATS had grown into the largest body of scientific staff involved in the application of industrial and personnel psychology in South Africa. It had a staff complement of almost ninety. But the army was in no position to financially sustain such a unit size under peacetime conditions.

Since the ATS had assembled a team of highly skilled experts in the application of industrial psychology including laboratories and equipment, it started progressively demobilising staff after the war. The Board of Trade and Industries (1945) recommended that the ATS be re-constituted as a national institute of personnel selection and research (Louw, 1993a: 72). This was also consonant with the advice of Basil Schonland to Prime Minister Smuts (Kingwill, 1990: 259). During the Second World War, Schonland served as a scientific advisor to the Smuts government. Schonland was also responsible for overseeing South Africa's wartime radar application development (Austin, 2001). This occurred at roughly the same time as Schonland was preparing to preside over the newly constituted Council for Scientific and Industrial Research (CSIR) in 1945 – South Africa's own version of 'big science'²⁴. However since the National Bureau of Education and Social Research (NBESR) of the Union Department of Education, previously under Malherbe and at the time under Cook was involved in aptitude and psychological test construction for scholastic and educational purposes, the CSIR was cautious about defining the scope and functions of the new bureau of research into industrial psychology. Thus, when the Bureau for Personnel

²⁴ See the overview article by S. Meiring Naude and A.C.Brown, 'The Growth of Scientific Institutions in South Africa' in the collection edited by A.C.Brown celebrating the centenary of the Royal Society of South Africa titled: *A History of Scientific Endeavour in South Africa*.

Research was established in 1946 as very much a temporary bureau, it was oriented for applications in industry (Kingwill, 1990: 259-260). Its name was changed in 1947 to the National Bureau for Personnel Research (NBPR). Biesheuvel's ability to attract substantial contract work from both the mining industry and the public service (Post Office and the South African Railways and Harbours) enabled it to become a national institute known as the National Institute for Personnel Research (NIPR) in 1948.

5.8.6 Industrial Psychology as an Industrial Management Technique and Tool to Skill Formation

The first non-government contract generated by the NIPR was with the Transvaal Clothing Manufacturers Association. It required the NIPR to construct and standardise a test battery of selection and classification for garment workers (Kingwill 1990: 263). An assignment for ISCOR was multifaceted and investigated absenteeism and labour turnover, job evaluation, apprenticeship selection and the development of screening and classification tests. This was followed by what Biesheuvel regarded as the most successful venture undertaken by the NIPR, namely developing a system of 'boss-boy' selection for the gold mining industry. The Institute's work also included the provision of vocational guidance services which it began to do from 1955 onwards (Kingwill 1990: 271). In the mid-1960s, the NIPR applied electroencephalography (EEG) with the requisite equipment in its screening techniques. This period also witnessed the expansion of its research activities into problems around work measurement, training and problems associated with employee attitudes and motivation or in Kingwill's words, 'the psycho-social factors' of productivity, job satisfaction, absenteeism and labour turnover. Its work in the 1960s covered experimental training programmes for black supervisors including programmes for the accelerated identification and promotion of black workers to management level positions, both of which was undertaken for the Transkei Development Corporation (Kingwill 1990: 270).

By the late 1970s the NIPR had designed a simulation model called the *6M Training Simulation* and it was designed mainly for black rural employees. 6M was the abbreviation for: Men, Machines, Materials, Money, Management and Market. The programme largely mirrored the functioning of a modern industrial organisation. It was essentially a simulation training programme for employees into business and industrial economics. The progressive trade union movement perceived 6M training as an apology for the apartheid status quo and were extremely critical of it (Chisholm, 1984: 401). This criticism has been echoed in a

number of academic studies such as Terre Blanche and Seedat (2001) and Dubow (1995). Thus, Dubow (1995: 242) accuses the NIPR of using testing procedures which accepted white domination as well as the subordination of black workers to menial forms of labour. While these criticisms are quite valid from the perspective of a democratic dispensation in South Africa, it is important that it does not over-shadow the emergence of applied disciplinary-based research that was starting to emerge in response to industrial management challenges under a growing and modernising enterprise economy. Researchers in new social science fields were equipped with a more up to date scientific and disciplinary knowledge and were thus better placed to understand the problems of industrial management. Thus one should acknowledge the significance of attempts by the NIPR under the leadership of Biesheuvel to use industrial psychology to intervene in industrial management and fundamentally shape the coordination process to human resource development and enterprise skill formation. This seems to be very obvious when the work of the NIPR is – not seen in isolation – but seen as forming part of a set of wider interventions that were taking place in South Africa. These wider interventions were being driven only partially by means of central coordination.

In other respects these seemingly parallel interventions were being constituted with a degree of voluntarism and in a contingent manner. It thus embodied high levels of creativity and originality and despite the limitations concerning overt planning it can still be usefully conceived as characterising an emerging system of human resource development, however uneven this appears to have been. While contemporary academics may be less sympathetic to these associations, the participants at a Social Science Conference convened by the University of Natal in 1954 under the chairmanship of Ernst Malherbe were given a favourable address by Professor MacCrone of Wits. MacCrone's address conveyed the sentiments of the leading social scientists in South Africa concerning these emerging systems. A synopsis of MacCrone's presentation which appeared in the *Conference Proceedings*, reads as follows:

‘Our limited manpower makes it urgent to press ahead with the scientific assessment of human abilities and aptitudes among both the European and Non-European population. The personnel required for staffing higher scientific, professional and technical posts is in short supply. This is understandable in view of our small population, but the absence of sound traditions in South Africa, comparable with the traditions of the Public Service in the United Kingdom, heightens the need to concentrate on producing an elite. South Africa cannot afford to waste talent and the

best student material must be discovered and guided by the Universities. The National Institute for Personnel Research and the Bureau of Social and Educational Research have done valuable pioneer work but research in this area must be intensified and extended' (Social Science Conference 1954: 38).

In other words, in a context where the institutions of learning were the main pillars to sustaining the country's labour supplies, the work of the NIPR and the NBESR had to be intensified and extended. Taking the argument of MacCrone further, this intensification and extension would result in a more visible application of work which had already started and was largely on a path that would prevail and be cemented over the next three decades in South Africa. The final architecture in the human resource development intervention which MacCrone and others were articulating was being strategically assembled in institutions which were already in existence such as the NIPR and the NBESR. Industrial psychology opened the door to personnel management or as H.P. Langehoven head of the Department of Industrial Psychology at the University of the Orange Free State in a preface to a Research Report which was issued by his Department expressed it, 'one of the more important sub-processes of personnel management is personnel or labour force or manpower planning' (See Preface in Uys, 1981).

The role of intellectuals tied to specific disciplinary and organisational programmes which presumably advocated principled intentions that were often uncompromising in respect of coordinating their programme was an important element to the wider societal coordination within which they were located. These were merely the intellectual footprints that were being laid down for a road whose construction was inevitable. Benson (1982) has referred to the work of such activist programmatic intellectuals as 'coordinating groups'. It is significant that such coordinating groups were replete throughout South Africa's history: before apartheid, during apartheid and after apartheid. This is how Benson characterises them:

'Coordinating Groups. There are also groups engaged in the rationalization of programs within and between sectors. These groups have an interest in reducing inefficiencies, consolidating programs, and creating more effective divisions of labor. The groups are not merely moralizers lacking structural attachment to the system. Rather, they are located in organizational units with rationalizing functions. Their career interests depend upon the success of rationalizing efforts. Some are attached to federal agencies attempting to coordinate a diverse array of federal, state and local programs. Others are in "network organizations" (Metcalf, 1974) such as planning agencies that operate between diverse groups. Some are attached to "public interest" and "good government" associations.

Coordinating interests are very prominent in the contemporary situation. In many different policy sectors provisions for rationalized central planning have been made, and agencies designed to accomplish it have been created. In addition a variety of management tools (for example P.P.B.S) to increase administrative controls of diverse programs have been introduced. Alford (1975) treated the “corporate rationalizers” as a major interest in health care politics. There were groups who proposed a more centrally controlled, functionally oriented health care system’ (Benson, 1982: 158).

Industrial psychology on its own did not necessarily constitute manpower planning. In South Africa manpower planning was brought about by the convergence of industrial psychology and educational psychology. Most important, it was cemented with the statistical applications which each discipline sought to institutionalise by strengthening the empirical and applied proofs that substantiated its disciplinary activities: psychometrics and its ancillary techniques that tested for results. The other was the statistical collection of educational supply data which had become a common feature of the HSRC since its inception in 1969. Manpower planning was driven by a strenuous application of research in the industrial management of human resources in particular and linked to predicting the labour supply situation in the country for different professions, occupational and racial groups. Despite ideological cleavages that arose out of the different sites of application which the industrial psychologists at the NIPR found themselves vis-à-vis the educational psychologists at the HSRC (Louw 1993b) the absorption of the NIPR into the HSRC in 1985 actually incorporated the two research institutions into a common vision. This vision of course was not shared by intellectuals who were brought in opposition to the above initiatives under the banner of the National Education Coordinating Committee (NECC). The NECC provided the vehicle in which the broad architecture of an anti-apartheid human resource development strategy was outlined (McGrath, 1996: 139).

Even the anti-apartheid intellectuals that were engaged in policy making appeared to have become infested with the idea that nothing was impossible. Coordinating groups are pioneers and often throw caution to the wind. A degree of absolutism can become ingrained in the policy prescriptions which are advanced. Typically, there is absolute conviction in the correctness of the policy trajectory that is put forward. There is often absolute certainty that the aims and objectives that are being set in policy would be achieved. There is often absolute optimism that the goal of establishing the new institutions to implement and deliver on the promises of a programme would be effectively and efficiently coordinated. Often little thought is given to culpability being assigned for failures which potentially could arise from

incorrect policy prescriptions. Johan Muller, the South African educational theorist has described this phase of the post-apartheid project in South Africa as the phase of critical reconstruction. It is characterised by the shift in the role intellectuals perform from being previous critics against the apartheid regime to becoming re-constructors under the new democratic dispensation which came into existence after the demise of apartheid. According to Muller, as intellectuals make the shift from critics to re-constructors, they discard their previous functional role as critics and fulfil another as policy makers and re-constructors (Muller, 2000: chapter 7) (also see Powell & Lolwana, 2012). It is quite logical to impute the existence of such critical re-constructors in South African policy history, even before the Union government was formed (before 1910) and before apartheid became official state policy (before 1948). It only means that the re-constructors are represented on different sides of the political divide, but more particularly, the side about to experience victory.

5.9 Conclusion

Chapter 5 of this thesis sketches a broad historical narrative to the coordination of skill formation, especially as it culminated in South Africa. Bearing in mind that the apprenticeship training system was the bedrock on which skill formation in the country was organised, the model of apprenticeship training which emerged in South Africa drew inspiration from the divergent routes which Germany and Britain mirrored. The borrowing of specific laudatory features or components from either the German or British apprenticeship system occurred in South Africa at various junctures over the last one hundred years. I tried to sketch this scenario in an earlier paper (Lundall, 1998). However, while these influences were strong, the South African model to apprenticeship training had unique features and characteristics. While the system in South Africa may also have been more rudimentary, it was shaped by concrete conditions and endemic struggles to ameliorate these.

Unlike either Germany or Britain, the South African state played a more active role in the regulation of apprenticeship training. And although it did not police it effectively, it still allowed firms significant latitude and autonomy to put the system into practice. It could even be argued that if the state had not been as legalistic in its regulatory interventions, the apprenticeship system would have become weaker and perhaps even moribund. Perhaps if it was entirely employer-driven, the skills formation system in South Africa would have

evolved in a different way. Aside from a few very large South African enterprises (e.g. ISCOR or the South African Railways & Harbours), very few private firms possessed in-house training schools or workshops for apprentices and trainees. Consequently, the extent of the state's regulation of apprenticeship training in South Africa, extended beyond the location of the firm to include provision for academic training provided through technical colleges spread throughout the country. The ability of the South African state to intervene and coordinate enterprise training was highly significant. Evidence illustrating the increased role which the state assumed to improve the coordination of enterprise skill formation is depicted mainly through the impressions captured in Commissions of Inquiry. These showed the degree to which Apprenticeship Committees served as coordinating mechanisms for the advancement of enterprise skill formation. A National Apprenticeship Board was institutionalised in the mid-1940s with the purpose of strengthening the coordination function of apprenticeship committees. It was an important building block that the state used to find an appropriate structure to control apprenticeship training policy. It also promoted decentralised implementation through individual apprenticeship committees spread across the country. In combination, apprenticeship committees and the National Apprenticeship Board constituted a significant coordinating mechanism designed to support enterprise skill formation in the country.

In a less direct but more strategic manner, professions and professional organisations put enormous effort into winning the confidence of leading private enterprises and state organisations particularly in respect of charting the adoption of the new techniques and principles. It was believed that these would enhance productivity and labour organisation. Central to these was the promise of contributing to improved coordination of services that shaped skill formation especially within the labour force of enterprises in both the state sector (including state enterprises) and firms in the private profit sector. The scientific and research benefits which stemmed from these initiatives were spread across all occupational levels. There was also a coalescence, between new professions in the field of human resource development, their professional organisations and the national applied research institutions established to harness and promote benefits from applied scientific research and especially in the social sciences. In some instance these became a national strategic resource but the objective of contributing to the coordination of enterprise skill formation was always in the foreground.

Chapter 6: The Coordination Mechanism in National Skills Policy during the Apartheid Period: 1960s to early 1990s

6.1 Introduction

In the following chapter, an analysis is provided of the coordination mechanism in national skills policy. This broadly covers the period when South Africa became a republic in 1961 to the period immediately after the announcement by FW De Klerk of the dismantling of apartheid in 1990. In particular, the chapter gives attention to the formation of institutions which enabled the development and application of mechanisms to enhance national skills policy. The chapter discusses the thinking that informed this process as well as the thinking and results that were generated to reform the national skills development system. In the last phases of the apartheid regime this goal was to construct a more inclusive labour market that also incorporated the excluded majority. Proposals for a coordination mechanism to national skills policy was challenged both practically and theoretically by a broad movement of opposition to the apartheid regime. It was from these struggles that the National Education Policy Initiative (NEPI) gained prominence. The critics at NEPI saw the need to go beyond the reformist measures of the apartheid state and indeed they laid the basis for work to be taken forward towards developing a comprehensive national levy grant system in South Africa. This chapter covers the period from the early 1960s to the early 1990s when bureaucrats and managers within both the state and the private sector economy in particular, attempted to construct an appropriate coordination mechanism to national skills policy. Such a coordination mechanism had advantages. It enabled more firms to support and participate in a more extensive system of workplace skills training.

6.2 Skills Coordination in the 1960s

In the last section of Chapter 5, some background is provided about discourses and organisational formations which claim a competence to intervene in human resource investigation and human resource management at the enterprise or firm level. The pervasiveness of a regular supply of skilled labour into the national economy in South Africa,

complicated further by deleterious racial policies, meant that ideas, discourses and institutional interventions that offered a resolution to these intractable South African dilemmas automatically generated greater attention from policy makers within and outside the state. These discourses and organisational formations were often mediated through academic and research institutions and professional bodies.

In the South African experience, personnel managers, as well as industrial psychologists, educational and manpower planners were at the forefront of this process. However, they were also supported by experts from a host of proto-disciplines (e.g. work-study officers, aptitude testers, training managers) each claiming, either accurately or exaggeratedly, some aspect of the enterprise as a key objective of its knowledge enquiry and specific 'competent' application. The process which set the trend for these new organisational programmes in South Africa mirrored trends from abroad (e.g. Industrial Psychology, Social Work, Accounting and Auditing).

The personalities introducing the new organisational and knowledge system into South Africa, the host country, were often civic-minded intellectuals and academics (e.g. Ernst Malherbe, Simon Biesheuvel, Isobel White, Edward Batson). Some may have spent time abroad and become inducted into this new thinking (e.g. Malherbe and Biesheuvel). Others may have immigrated to their new homeland, quickly surveyed the landscape and saw needs which knowledge of the advanced techniques of a home country could help fill. Immigrants such as Isobel White and Edward Batson became champions in their new homeland to an agenda that elevated them in a manner which they could not have anticipated had they not immigrated to South Africa from Britain.

Many of these initiatives in South Africa were spearheaded by civic minded intellectuals and academics (e.g. Ernest Malherbe, Simon Biesheuvel, Isobel White, Edward Batson). At the inception of their involvement these intellectuals and academics were structurally based within institutions and organisations which were outside the confines of the profit-generating sector of the economy. Typically too, at the inception they were also outside the confines of the state. Despite being outside the private market sector and the state sector, there was steady support especially from private philanthropic sources for the work in which they were involved to continue. For instance, Malherbe's salary at the NBESR was heavily subsidised by the Carnegie Corporation. Gradually too, state institutions saw the usefulness of the new

ideas being espoused and rendered support in different ways. Perhaps the first footprint towards establishing a movement for human resource development occurred through the work of the Leather Industries Research Institute (LIRI). Under the directorship of Dr Stanley Shuttleworth, LIRI had begun to undertake industrial research to improve economic performance of leather firms mainly in the Port-Elizabeth regional economy. It was also coincidental that Isobel White whose husband had been appointed to the chair of Classics at Rhodes University in Grahamstown in 1939 soon came into contact with Shuttleworth and took up part-time employment with LIRI in Port Elizabeth (Legg, 2004: 59-64).

Almost a decade before Isobel White's arrival in South Africa, Ernest Malherbe who had just returned to South Africa with a doctorate in Educational Psychology from Columbia University in the United States was instrumental in establishing the National Bureau of Educational and Social Research (NBESR) in 1929. It was envisaged that the Bureau would undertake educational research (e.g. involving among other items, the relationship between poverty and intelligence among poor-white children) for the Union Department of Education. Since the Department did not have a sufficient budget to cover the operational costs of this new research bureau, the Carnegie Corporation subsidised his salary costs from its inception until 1931. During this period, Malherbe was also engaged in writing the educational report to the Carnegie Commission into Poor White poverty. These events are recorded in Malherbe's (1981) autobiography.

For the NBESR to become a more permanent fixture on the South African landscape meant securing a financial support base that went beyond philanthropic benefaction. Just as is the case today (2017), without philanthropic assistance, a new secular institutional entity such as the NBESR could not possibly be supported even in part by resources from the social development sector, albeit it a philanthropic institution. Neither could the association of firms in the private sector render it such support without it first ministering to its specific enterprise needs. It was therefore inevitable for the state to be lobbied as a more generous benefactor to give the research programme of new organisations such as the NBESR incubational protection and ultimately a more permanent institutional presence that could justify the visionary outlook of its founder. This would have been quite clear to Malherbe in the 1920s and 1930s, just as it would have been quite clear for civic minded intellectuals and academics in the 1950s and 1960s who were captivated by the possibilities of big science programmes underwritten by the state. Basil Schonland the first director of the Council for

Scientific and Industrial Research (CSIR) which was established in 1945 was the ultimate trend-setter to this process (Austin, 2001). These visionary expectations would also have permeated the consciousness of the conglomeration of intellectuals and academics that were assembled to form the CSIR in the late 1940s. At the behest of Schonland and against Smut's reservations, a seat at the table was reserved for the Industrial Psychologists represented by Simon Biesheuvel. Brian Austin, Schonland's biographer adds more nuance to the story:

'An idea also lurking there, and one stimulated very much by the success achieved in South Africa under Dr. Simon Biesheuvel in the selection of aircrews during the war, was to set up a facility for research into industrial psychology. When he first put this suggestion to Smuts, the Prime Minister responded by telling Schonland that it sounds like 'pretty good nonsense' but Schonland argued that Biesheuvel had developed scientific techniques of selection that were well in advance of those employed elsewhere and their application to industry would be of great benefit in the longer term. Though Smut's own assessment of people was sometimes criticised, his philosophy, once he had selected the right man, was to allow him full rein and so, having put his faith in Basil Schonland, he now accepted his judgement and allowed him to proceed. Schonland's faith in Biesheuvel would indeed be vindicated in the years to come' (Austin, 2001: 313-314)²⁵.

Similarly, under the changing conditions of the 1990s in South Africa, educational and skills development activists would have harboured similar visions of relevant knowledge production, for a new state and a transforming social formation.

In the human resource development sphere – which covered the spectrum of educational and training development from infancy to old age; from workforce development and training to the educational and training development of practitioners under a new South African democratic society, there was a much clearer demarcation between the old order and the new order.

²⁵ Schonland was by far the most prominent South African scientist at the time having studied under the New Zealander, Sir Ernest Rutherford at the Cavendish Laboratory at Cambridge University where he completed his doctorate shortly after the end of the First World War. Coupled with his work on radar technology which he undertook at the Bernard Price Institute at the University of the Witwatersrand, Schonland was virtually the de facto scientific advisor to the South African government under the United Party. Of course it did help that Schonland's wife was a distant relative of Smuts. Austin relates an incident when Smuts made his first war time visit to Britain in October 1942 and addressed the combined House of Lords and Commons on the 21st of October. A special film of the address was given a day or two later at South Africa House. The Schonlands' were guests at the garden party in Smut's honour after the screening. When they were finally presented to the Prime Minister, Smuts immediately broke into Afrikaans and said: "Maar dis ou vriende die – ons is mos familie, almal Hofmeyrs" [PL's translation: 'But these are old friends – we are actually family – we are all Hofmeyrs'] (Austin, 2001: 251).

Just as the state was supported by a spectrum of institutions delving within the human resource development environment from the mid-1950s to the early 1990s, a similar process started to unfold as new institutions exhibiting a human resource development agenda began to emerge from roughly 1990. Before the onset of democracy in South Africa in 1994 and its full consummation after 1994, this emergence in its multiple configurations was mainly mirrored in the community or non-profit sector which I often refer to as the social development economy. Before 1994, human resource development initiatives and proposals were eagerly formulated within NGOs (e.g. the Community Agency for Social Enquiry (CASE) in Johannesburg and Careers Resource and Information Centre (CRIC) in Cape Town), research units attached to universities (e.g. the Education Policy Units (EPUs) at Wits and the University of Natal) as well as through study groups and research initiatives within trade unions (e.g. NUMSA) and emerging educational coordinating bodies (e.g. the National Educational Crisis Committee which eventually spawned the National Educational Policy Initiative (NEPI)). Though much earlier on, a similar process started to emerge when the Union of South Africa became a republic in 1961. This episode requires brief focus because it holds continuities to the shape of educational and training policy with the onset of democracy in South Africa after 1990.

6.2.1 Organisation and the Force of Disciplinary Knowledge

In May 1961 South Africa abrogated its status as a dominion to Britain and became a republic. By then, the contours to the disciplinary landscape which mirrored the quest to investigate human resource development in South Africa had already begun to congeal. Occupying a lower rung in professional status were the personnel managers who had access to enterprises through their employment in firms which operated personnel departments. Personnel managers existed to serve the human resources, personnel and training needs of the enterprises with which they were associated. They were also represented professionally through the Institute of Personnel Management. Dominating the field were the Industrial Psychologists on the one side and the Educational Psychologists who were the most dominant sub-disciplinary grouping in the field of education and social science research on the other. Each was attached to a dominant disciplinary discourse which had specific features of the human resource development field as its object of investigation. These disciplines were represented at the apex of national research production in the country through organisations which had a significant research capacity.

In 1955, the National Institute for Personnel Research with Simon Biesheuvel at its helm had a staff complement of 88 and operated a number of research laboratories and field research divisions covering the sub-fields of theoretical psychology, psychometrics, African studies and mathematical statistics. The principal discipline responsible for coordinating the research programme of the NIPR was undoubtedly Industrial Psychology. In addition, the NIPR also operated field research divisions which conducted research on personnel selection and classification, job evaluation and industrial relations, job adjustment including absenteeism, labour turnover and accidents, conducted attitudinal studies of workers and also explored measures of efficiency through trade testing (Masson, 1955: 15-17; Kingwill, 1990: 258-273)

At the time, the National Bureau of Educational and Social Research was the apex national research institute in South Africa that operated in the field of educational and social research. In 1955 it had a staff complement of 25 (Masson, 1955: 99). The NBESR was established under the Department of Education, Arts and Science and as was indicated above had been established in 1929 by Ernest Malherbe. Shortly after the CSIR came into existence in 1945, the Union government also established the National Council for Social Research (NCSR) in 1946. The National Council for Social Research would eventually evolve into the Human Sciences Research Council when it was established in 1969.

There was significant overlap between the NBESR and the National Council for Social Research (NCSR). In a directory of social research organisation in the Union of South Africa, published in 1955, the functions of each is clearly outlined. The NBESR was required to undertake research in education and psychology, physical education and 'Native' education. It was also required to serve as a 'clearing-house for information on education and research in South Africa' as well as act as the secretariat for the NCSR or any of its special committees when this was needed (Masson, 1955: 99). Under the directorship of Dr P. Olckers, the NBESR had a staff complement of 25 in 1955. While operating from basically the same building, the NCSR possessed a broader functional mandate than the NBESR. Its functions and objectives as spelt out in 1955 included the following:

- a) 'to promote, organise, co-ordinate and assist educational, sociological and humanistic research on a national basis, but not to dominate or monopolise the field;
- b) to encourage and to undertake the planning of research projects;

- c) to ensure efficient and economic use of monies;
- d) to create, where necessary, bodies for carrying out long-term researches;
- e) to encourage the training of highly qualified research workers by means of grants, scholarships and fellowships to selected individuals for attachment to university departments, government departments or other institutions;
- f) to provide information, liaison and statistical services as well as to assist in the publication of results and other material likely to be valuable for research;
- g) to promote library services;
- h) to formulate in general terms research policy, and to put forward to the government and the country the needs of research;
- i) to obtain and administer endowments;
- j) to issue a Journal of Social Research twice yearly, an annual Register of Current Research in the Humanities undertaken by Universities and other organisations, and an annual report (Masson, 1955: 100).

As one takes a broad historical sweep of the period since the 1950s, one can only marvel at the foresight which went into elaborating the core objectives and functions of the NCSR. These replicated almost verbatim the functions and objectives of the HSRC when it was formed in 1969. Most astonishing is that the objectives set out for the NCSR remained broadly similar to that set out for the HSRC over twenty years later and beyond. It is what one would imagine apex national research organisations which have a broader mandate to what either the NBESR or the NIPR with their more disciplinary orientation could not be. Neither would these original functions be inconsistent with an organisational structure which witnessed the NIPR being cast off from the CSIR in 1985 and being absorbed into the HSRC.

6.2.2 Schism in Professional Organisation and Disciplinary Knowledge

By 1960, the terrain of human resource development and skills development more specifically already clearly occupied the knowledge disciplines that could epistemologically and legitimately claim this space as its unique patch in its research investigations. Minor enterprise tools, techniques and organisational stratagems that had less claim to disciplinary status such as Personnel Management and Work Study did not attain the same level of professional status and was mainly diffused and exchanged among managers within firms. In respect of personnel management, coordination of its professional standing and future direction was achieved through the Institute of Personnel Management. This did not mean that national research institutes such as the NIPR abdicated its claim on the scientific nurturing of 'Personnel Management'. This would have been seen only as a component to the theoretical principles of industrial psychology, as was evident from the curriculum structure of contemporary university qualifications in Industrial Psychology.

Nonetheless, by the time that South Africa became a republic in 1961, the entire disciplinary field which could legitimately lay claim to the spawning investigation into the requirements and resolution of human resource/skills development in South Africa that had started to gain momentum was largely under the auspices of psychologists. Generally, the content orientation of these psychologists was of two types: industrial psychologists or educational psychologists. Other disciplines in the human sciences which had previously addressed specific features of the human resource/skills development concerns such as social work (previously a more influential grouping as social welfare officers), economists and sociologists were no match to the psychologists. Whereas, economists and other technical enumerators (statisticians, operations researchers) had the technical skills to measure and forecast predictable events, they were not able to match the applications and organising logic of the psychologists and were therefore no more than foot soldiers. Despite the NIPR establishing an Industrial Sociology Department (see South African Council for Scientific and Industrial Research, 1955: 17&19), sociology as a discipline and the sociologists as a profession were almost invisible to the process.

Institutionally too, the national apex institutions which conveyed the disciplinary outlook of either the industrial psychologists (NIPR) or the educational psychologists (NBESR & NCSR) had largely become institutionalised. In general, any white South African post-graduate student studying in the field of industrial psychology or educational psychology knew that if not selected for an academic or research post at a university, they had equally good prospects of continuing their research investigations at a national apex institution in their field of training, albeit that these institutions were located on the Witwatersrand in Johannesburg or Pretoria.

In 1962, the industrial psychology and educational psychology communities were affected by a split in the professional mother-body. The South African Psychological Association, founded in 1949, to which most psychologists in the country belonged, split (Legg, 2004: 92; Louw, 1993b). The split was brought about by an insistence in government policy to enforce separation among professional societies so that different racial groups would each have their own professional society. A breakaway all-white body, known as the Psychological Institute of the Republic of South Africa (or the more popular Afrikaans designation: die Sielkundige Instituut van die Republiek van Suid Afrika (SIRSA), was formed. As Legg notes, ‘SIRSA’s

membership strength lay largely in the Afrikaans language universities and the state departments' (Legg, 2004: 92; also see Louw, 1993b: 256-257). It immediately received statutory recognition. Both psychology societies published separate journals until their eventual merger in the late 1970s. Thus, little collaboration could take place between the two but as Louw (1993b) argues, it resulted in two effects on the field of practice among educational and industrial psychologists:

'First, PIRSA initiated a recruitment drive, and for the first time included educational psychologists in their definition of professional psychologists. This allowed them to swell their numbers considerably, as educational psychologists were the largest group in the country. Second, because the majority of NIPR personnel stayed with SAPA, the industrial psychology side of PIRSA activities were weakened. Thus PIRSA would show mainly educational applications, and SAPA predominantly industrial applications. PIRSA members tended to be in the counselling, educational and psychometric fields, while SAPA members were slightly in the majority in the industrial, clinical and social fields' (Louw, 1993b: 257).

This split meant that the future organisation of professional coordination among psychologists in South Africa would henceforth require more careful navigation to be effective. Reflecting on this episode almost thirty years later Cloete and Muller (1991) noted that the split also immediately influenced the relationship between psychologists deployed within the apex research institutes that were doing applied psychology in South Africa, namely the NIPR and the NBESR/NCSR constellation, which would subsequently be consolidated to form the HSRC. Cloete and Muller's characterisation is extremely insightful:

'First and most visibly, the HSRC was predominantly Afrikaner Nationalist while the NIPR was English and associated with the liberal SAP (South African Party). Furthermore this meant that the NBESR and later the HSRC usually pursued research of national (and Nationalist) priority, while the NIPR pursued the prerogatives of English-owned capital. Political differences aside, there was a difference in style of research too which is less easy to characterise. The Afrikaners of the HSRC, coming as they did from an idealist, hermeneutical, continental tradition of human scientific research, were always more concerned with the human (and political) side of social commerce, with research into attitudes, aptitudes and aspirations as empirical signposts of the state of health of the national spirit.

The English at the NIPR, following the British and American positivist tradition, were always more concerned with methodological niceties, on the one hand, and with technical improvements in human performance with a view to enhancing productivity, on the other' (Cloete & Muller, 1991: 146).

While the discipline may have been fractured with an ideologically engineered split within the professional society of psychologists in South Africa, the apex institutions which

supported investigation into aspects of human resource/skills development in South Africa were still intact. Financially too, this research would continue to receive state support. More importantly, as a result of the new relationships that were forged in the 1960s between the wielders of political power and the scientific research community, scientific research conducted by the NBESR/NCSR would necessarily generate more serious consideration and political endorsement by those in power.

Despite these schisms in the professional organisation of the psychology community in South Africa, the industrial psychologists made a significant contribution through their work to the skill formation process. It included more systematic personnel and classification methods, the selection and training of mine workers, the design and construction of test batteries in psychometrics as well as training programmes and the generation of vocational guidance services. On the training front, as was indicated in Section 5.8 of Chapter 5, the 6M Training and Simulation Programme was a result of this theoretical and applied work in industrial psychology (also see Kingwill, 1990: 258-273 for a celebratory overview).

6.2.3 Measuring the Skills Crisis in the 1960s

From the 1960s, the NBESR set about conducting employer-surveys that measured the demand and supply of critical sources of labour in South Africa. The surveys were important because it set in place a methodology to measure demand and supply in the intermediate and high occupational levels (e.g. scientists, engineers, technicians and artisans). It also provided state officials and policy commentators in the private market economy and non-profit sector or social development economy with access to this type of data. This allowed all concerned to have a better understanding of the provisioning of educational and training production to support intermediate and high level occupations. These surveys also provided evidence for the routine enquiries, investigations and interventions which a modern state typically plans and executes. Perhaps the most important of these in the years immediately after the establishment of the apartheid republic was the Straszacker Commission into the existing methods of training the engineering, scientific and ancillary labour corps in South Africa. The Straszacker Commission was completed in 1965 and there were many other commissions set up in subsequent years that required similar research and technical support. The NBESR was intimately involved in generating empirical and policy insights that were used in these enquiries by the state.

A brief glimpse into a report completed in 1960 by the NBESR into the training and employment of scientists and engineers is instructive. Data for the report was generated through an employer survey conducted by the NBESR. The survey initially included government departments, municipalities, state corporations and private sector firms. Unfortunately it over-represented public sector employer responses while under-representing private employer responses of the demand and supply for scientific labour. The data generated from the survey enabled the NBESR researchers to calculate vacancy rates for different categories of scientific labour. An illustration of the type of data generated and the form of its representation by the NBESR is reproduced in Table 6.1 below:

Table 6.1: Vacancies for Engineers in Different Categories				
Category of Engineering	Posts Existing	Posts Filled	Posts Vacant	Percentage Vacancies
Civil**	2618	2250	368	14
Electrical or mechanical	1327	1220	107	9
Electrical	696	628	68	10
Mechanical	392	317	75	23
Mining	587	575	12	2
Industrial*	302	300	2	1
Chemical	207	180	27	15
Metallurgy	188	186	2	1
Note: * Industrial includes Mechanical, Electrical and Chemical Engineering				
** Civil includes Agricultural Engineering				

Source: National Bureau of Education and Social Research (1960), Table 33, p.32.

In subsequent years, data from similar surveys were produced showing vacancy levels for technicians, artisans and other categories of labour. From 1969, annual *Manpower Surveys* were produced that depicted similar trends for workers at different occupational levels in the manufacturing sector. The data from these surveys informed the national dialogue on skills shortages throughout the 1960s, 1970s and 1980s. Even at the beginning of the 1990s, the *Manpower Surveys* embodied the best available data from which to measure occupational mobility and the effects of industrial training on the racial division of labour in South Africa (see Crankshaw, 1997; Lundall & Kimmie, 1992).

The political climate of the 1960s, coupled with a more constant generation of evidence of skills shortages across many occupational tiers of the South African labour market, reinforced the critique that the racialized job reservation policies of the Nationalist Party government had perpetuated these skilled labour shortages. In the main, South African liberal intellectuals, academics and activists (e.g. South African Institute of Race Relations) were at the forefront in advancing this critique. These racial and political policies reverberated across society with a wide spectrum of institutions, practices and effects contributing to shortages of skills. Apprenticeship committees were seen to police access to training opportunities especially for potential coloured and Indian apprentices (Hemple, 1969). Through the reinforcement of mediocrity an acute shortage of personnel particularly in the fields of physics and mathematics was perpetuated (Horrell, 1963). The thrust of the criticism was about reversing apartheid policies which inhibited participation from ‘non-white’ South Africans who had the requisite educational and experiential credentials but were prevented from participating in the labour market and contributing to the overall economic prosperity of the country. While most of these commentators remained true to the evidence at their disposal, there were those who occasionally exaggerated the problem of skills shortages. For them skills shortages was a national crisis. Even the staunch liberal academic and doyen of educational research for policy change in South Africa, the founder of the NBESR under the fusion government²⁶ – Ernest Malherbe – ventured into the debate. Almost reminiscent of Walter Rostow’s stages of economic growth theory (popularised in South Africa during the 1970s by Michael O’Dowd), Malherbe postulated a scenario in South Africa of intense labour shortages that by the 1970s would inhibit economic growth in the South African economy. Using the estimates made by a certain Dr Meyer in 1960 when he was the President of the National Development Foundation of South Africa, Malherbe (1967) writing in 1967 extended Meyer’s projections to 1970. As Malherbe put it:

‘In order to give some idea as to how many persons South Africa will need at managerial level if it were geared to the industrial and economic efficiency of the

²⁶ The fusion government in South Africa arose as a result of the formation of a unity government of the ruling Nationalist Party in South Africa under General JBM Hertzog and the opposition South African Party under the leadership of General JC Smuts in 1933. Both had been prominent Boer generals who had fought the British during the Anglo-Boer War. Under the unity government Hertzog was Prime Minister and Smuts was deputy Prime Minister. The unity government was formed in response to the effects of the economic crisis which the Great Depression wrought on the South African economy. Unity between the two parties was a motivation for their merger and fusion particularly after they comfortably won the 1934 general election. The merger and fusion between these two parties was complete when Hertzog and Smuts respectively led the majority factions of each party to form the United South African National Party at the end of 1934, which was simply known as the United Party.

United States, he [i.e. Dr Meyer P.L.] applied the U.S.A. percentages to South Africa's present gainfully employed proportion. According to this reckoning Dr Meyer estimates that the Republic of South Africa now needs:

- (i) 560,000 managers, officials and working owners,
 - (ii) 710,000 foremen, craftsmen and kindred workers,
 - (iii) 550,000 technical, professional and kindred workers, making a total of 1,820,000 trained people required for our present national economic needs.
- By 1970 this figure will rise to 2,345,000 trained people in terms of our estimated gainfully employed population of 1970' (Malherbe, 1967: 5).

While morally correct, in Malherbe the liberal critique of the racial exclusionary training policies of the apartheid regime was not empirically grounded. Even though he was at the time a university administrator (vice-chancellor at the University of Natal) he could not influence the coordination mechanism of state human resource/skills development policy. He did however draw the attention of those opposing the job reservation policies of the NP government. Although, the liberal programme of critique was supported by many holders of disciplinary knowledge within state funded research institutions (e.g. the NIPR as well as the source to Hellman's statement about the quality of white entrants in apprenticeship programmes), Malherbe the Columbia University trained educationalist did not invoke this disciplinary grounding strongly enough in defence of his argument. Like a prodigal son, his utterance represented those of someone who had abdicated his disciplinary knowledge as well as his authority in the state economy. Despite sympathies to his cause from the liberal segments of the organised business community, neither did he occupy the structural location and authority to represent the sentiments of firms and enterprises in the private sector on this matter. It was as if, his political and disciplinary voice had been relegated to the wilderness of the community sector.

Malherbe's critique was just a step away from characterising the skill shortages as a skills crisis. But from the mid-1980s, the notion of a skills crisis had already begun to filter into the pantheon of critique against the training policies of the apartheid regime. A more sober perspective to Malherbe emerges from Meth (1979) but the general argument which he advanced was unfortunately not seriously taken up by the radical scholarship of the 1970s which he himself formed part. In Meth's words:

'The problem with the skills shortages melody is that it has been played too often. Over the years, various authorities have taken it upon themselves to pronounce on this important matter. Gibson for example, quotes an Education Panel prediction made in 1961 which estimated that 49 000 apprentices would have to be in training in 1965

and 110 000 in 1980, to meet the demand for artisans. With the benefit of hindsight we know that only 46 000 apprentices were in training in 1977 and we also know that shortages were negligible' (Meth, 1979: 82).

Meth (1979: 82) argued that while skilled labour shortages did exist in the South African economy these did not inhibit the post-war growth in the South African economy. Meth argued that it would be extremely difficult to prove that the South African economy would have grown faster had these shortages not existed. Even though it was likely to generate conflict between trade unions and employers, Meth (1979: 83) maintained it would have been perfectly feasible to increase productivity and economic growth through mechanisation and extensions through the division of labour using job fragmentation. In fact both processes according to Meth were important in the post-war growth spurt in South Africa. Both processes would have elevated employer discourses on industrial training to the helm.

But why did employers not choose this route? Actually they did. Jon Lewis (1984, chap.7) elegantly documented the struggle between employers and white craft unions in South Africa over the introduction of job dilution and job fragmentation particularly in the period preceding and immediately after the Second World War when machinery was introduced on a large scale within the manufacturing industries. Similarly Eddie Webster did corresponding research on the Iron Moulders (Webster, 1985). Correlating this picture of job fragmentation and job dilution with what employers said they were doing in contrast to what they actually did do at the workplace will get us closer to differentiating between the ideological and the real. When the 1958 government Commission of Enquiry into Policy Relating to the Protection of Industries invited evidence from employers about the major inhibitions that they had experienced and were continuing to experience, during the post-war industrial development of the Union, there was not a wide chasm between the submission from the Associated Chambers of Commerce of South Africa (ASSOCOM) from the position liberal critics were starting to put forward. ASSOCOM's response to the questions raised by the Commission raised the following concerns:

'In the Association's view, the main limiting factors in the post-war industrial development of the Union have been, labour shortages, relative capital shortages, inadequate transport services, and a limited market for the Union's products.

Restrictive legislative policies have hindered the full utilisation of existing labour resources. The Industrial Conciliation Act by excluding Natives from collective bargaining has had an indirect effect of retarding the acquisition by them of skills necessary to perform tasks for which there is now a shortage of trained labour. The

manner in which influx control is administered has created a greater non-European labour turnover than would normally prevail, by establishing an artificial situation of full employment. Restrictive trade union practices have also limited the extent to which non-European labour is able to acquire skills' (ASSOCOM, 1957: 16-17).

ASSOCOM did not refer to the process of job dilution and job fragmentation with which employers had already experimented. It instead gave a generalised viewpoint about mechanisation:

'The advantages of increased mechanisation, and the increased use of mechanised methods, have been limited by the size of the market in the Union, and it is important therefore that industry should develop export markets. This limiting factor could be lessened if immigrants were encouraged to the Union and more attention was paid to the non-European as a consumer. By increasing the non-European's ability to produce we could increase our national income and our internal market' (ASSOCOM, 1957: 18)

Extracting evidence from earlier Commissions of Enquiry however provides useful insights into the process of job fragmentation which was occurring, particularly in the furniture industry. The process of job fragmentation taking place in this industry did not necessarily imply that there was a dilution in the skills composition of workers subjected to it. The breadth of skills would certainly have been reduced but its depth may have been preserved.

In its 1935 report, the *Industrial Legislation Commission* mentions in passing that 'until a few years ago', one of three active apprenticeship committees in the furniture industry had started to substitute a system of learnership for that of apprenticeship (U.G. 37/1935, para.709). Learnership was a form of 'in-plant' or on-the-job training. It corresponded closely to apprenticeships but levels of obligatory skill required to successfully complete learnerships was not as high as apprenticeships and the training periods were shorter. In other words, following the evidence of the Industrial Legislation Commission of 1935, young workers who qualified for apprenticeship programmes were instead undergoing training in learnerships. The Commission did however recommend that a substitution of a learnership system for an apprenticeship system seemed preferable where there were marked advances in production techniques. It was suggested that where an earlier requirement to possess a skill for a job that minors as well as adults would typically do was no longer relevant, 'a system of learnership should be substituted for apprenticeship (U.G. 37/1935, para. 724). The Industrial Legislation Commission was therefore condoning the substitution of learnership training for apprenticeship training where production requirements had changed. These

production requirements can only suggest that already by 1935, the onset of job fragmentation and job dilution which necessitated the introduction of learnership training schemes had already started gaining momentum, particularly in the more marginal industries such as furniture-making. In trades that had been affected by mechanisation but where skills were still an important factor, the Commission suggested that the length of apprenticeship indenture periods could be reduced:

‘It appears also from evidence that there are some trades in which, despite the introduction of machinery and other new methods of manufacture, skills still plays an important part. Designation of these trades is still fully warranted, though the present lengthy period of apprenticeship may no longer be necessary’ (U.G. 37/1935, para. 725).

Since skill in workmanship continued being an important factor that required demonstrating ‘a considerable knowledge of material’, even when machine processes as the Commission pointed out had already become quite pervasive, the Commission suggested that under such conditions learnership training programmes were not an effective substitute:

‘The mere displacement of manual by machine processes is in itself no justification for removing a trade from the skilled to the semi-skilled category. Machine processes often involve a high degree of skill in workmanship and a considerable knowledge of material and it is in the interests of employer and employee alike that in suitable occupations a proper period and course of training under indenture should be prescribed. Learnership is not an effective substitute for apprenticeship in these cases’ (U.G. 37/1935, para. 726).

The subject reared its head again thirteen years later with the release of the report to the *Commission on Technical and Vocational Education (De Villiers Commission)* in 1948. Since learnership training fell under the auspices of industrial councils, they could bypass apprenticeship committees. Because the promotion of learnerships had an affinity to in-plant or on-the-job training, these potentially could remain undetected, especially outside the purview of the state and apprenticeship committees. Since fewer third party-agents were involved in overseeing its regulation, employers therefore had much more discretion and control over learnership training programmes. This is what the De Villiers Commission had to say about learnership:

‘In the Union, learnership as opposed to apprenticeship is undertaken in non-designated trades, to which apprenticeship regulations do not apply. Learnership may also be served in a designated trade which is not covered by an apprenticeship committee. Learnership is at present a matter of in-plant training or “training on the job”. Its aims are in general the same as apprenticeship training. It differs from

apprenticeship training in that the trainee is not under contract, does not have to attend technical classes and normally does not have to attain as high a level of skill as the apprentice. Learnership periods are thus often very much shorter than apprenticeship periods' (U.G. 65/1948, para. 1230)

If we return to the issue which Meth (1979) raised about the tendency to exaggerate the degree of skills shortages in South Africa as well as examine the relative flexibility of employers to covertly subvert apprenticeship training and have it substituted with learnership training, we have to ask what would the losses in relation to skills have been? Lewis (1984) alludes to the fact that because of job dilution, the production of craft skills had in many instances throughout the 1950s become so only in name. Craft had become synonymous with a particular supervisory function and station of control in the division of labour. It is quite conceivable that the dilution of skill for artisan and craft positions could have occurred almost simultaneously as increased levels of skill became concentrated in semi-skilled workers. Seen from the perspective of the craft worker, if a specific type of formal training system (i.e. apprenticeship) is being substituted by another (i.e. learnership), a substitution where a lower status system replaces another with a higher status system, in the aggregate the skills in the occupation of the craft worker should register a decline. But seen from the perspective of the operator or semi-skilled worker, if a new type of formal training system (i.e. learnership) is being introduced where nothing such as this existed before, it elevates the status of the operator from one with no formal qualifications to that where the qualification is a learnership. In the aggregate, the occupation of the operator or semi-skilled worker would be marginally elevated because a definite accumulation of skills would be shown. If the training period reserved for the substituting training system is almost equivalent to what was in place before, it seems obvious that a significant accumulation in skill was covertly taking place. Training programmes designated as learnership training by the De Villiers Commission would probably have exhibited similar traits. The view of the Commission on learnerships was as follows:

'The position regarding learnership in the Union cannot be regarded as satisfactory, as there are cases where the period of learnership is equal to that of apprenticeship. Learnership is controlled by Industrial Council agreements and not by learnership committees. In the case of the furniture industry, the period of apprenticeship has been laid down as four years by all committees, functioning in the various parts of the Union. The Witwatersrand Furniture Apprenticeship Committee was dissolved in 1936 and a learnership system introduced, the duration of which is four years, the same as that of apprenticeship, and there is no requirement to allow such learners off work to attend technical classes or carry out any other obligations laid down in the Apprenticeship Act. There are many other cases of learnership where the period is

four years, e.g. for steel furniture making, 5 years; for steel chain-making (certain sections) 4 to 5 years; and in the case of gate and fence making, 4 to 5 years' (U.G. 65/1948, para. 1231)

In the furniture industry in particular, learnership training was being used as a substitute for apprenticeship training from at least the mid-1930s. By the 1970s when Charles Meth examined the evidence of division of labour in the furniture industry, with the exception of supervisory positions (e.g. foreman, charge-hand, supervisor and maintenance fitter) where white personnel were in significant numbers, the operator and craft segments of employment in the furniture industry was predominantly held by coloured and Indian workers. According to Meth (1978: 15) by 1959 – except for the Orange Free State – in the three other provinces of the Union, coloured and Asian artisans out-numbered white artisans in the furniture industry. By 1964, 'there were roughly 5 Coloured or Asian artisans in the furniture industry for every White' (Meth, 1978: 15). Essentially, while the uptake of learnerships was under the auspices of industrial councils, the industrial councils did not necessarily give blanket endorsement for the expansion and uptake of learnerships. It only meant that it was used more frequently in industries which had a low representation of craft workers (and typically white craft workers who potentially could enforce job reservation) engaged in the production work within enterprises and firms. In industries such as furniture where the operator and craft segment was predominantly coloured or Indian, the Industrial Council would probably have been more generous to the expansion of learnership training. The owners and managers of these firms as well as the workers involved would have perceived it as categorical evidence of skill formation. Under the apartheid system this would just have had to be coordinated through a haze of smoke and mirrors. This is a pertinent example of how market coordination was invoked to secure the coordination in the supply of requisite skilled labour. Incidentally, this occurred in opposition to the regulatory and compliance requirement that was upheld by the state through the Apprenticeship Act.

Presumably the workers that qualified to undergo learnership training during the 1960s when the skills shortage debate was furiously ablaze would have been classified in terms of the Industrial Conciliation Act, as workers. This means that black workers would have been excluded from gaining access to such programmes and in the main, it would have been directed to coloured and Indian workers who were less likely to gain access to apprenticeship programmes. White workers, both male and female but particularly women, who failed to secure early indenture in apprenticeship training programmes may too have been recipients

for such training. But such learnership programmes fell outside the scrutiny of the apprenticeship committees and the state and were instituted through on-the-job programmes under the auspices of Industrial Councils. If the skills shortages were as pervasive as the critics claimed what for instance would have prevented firms from discarding the formal designation of the training in learnerships and assigned such training to black workers for instance? It would have been equivalent to selling a brand consumer good to middle-class customers and selling a no-name brand to a customer classified below the middle class. While commentators such as Malherbe and the liberal critics of Apartheid may have raised concerns about the pervasiveness of skills shortages in the 1960s particularly in the manufacturing industries, they may have inadvertently under-estimated the skills embodiment within the black labour force particularly those occupying the semi-skilled and operator job categories who potentially would have been able to undertake more skill-intensive job tasks despite their low skilled occupational designation.

This point has enormous significance particularly considering the multiple-dimension which the discussion of skill showed in Chapter 3. The point which Francis Green (2011) raised is pertinent particularly concerning the three pronged notion of skill. To reiterate the PES principle which affirms the existence of skill: it would show that the new skill embodies attributes which are productive of value (P), its focus on black unskilled and semi-skilled workers in the 1960s would signal that its quality could be expanded further (E) and finally the process would be embedded in social construction (S). All three of Green's attributes of the existence of skill would apply. The summary which I provided to Chapter 3 furthermore identified four sources to the acquisition of skill. One can confidently surmise that two of these sources would have applied particularly among employers who surreptitiously increased the skills embodiment of black workers in defiance to the job reservation stance which they were obliged to uphold. Under these non-ideal circumstances, a limited form of on-the-job training as well as skill acquisition through surreptitious work experience in the new positions would still formally indicate that marginal but important elements of upward skill formation would actually have occurred. Job fragmentation would have camouflaged this process from official scrutiny as was the case in the furniture industry since at least the late 1930s. Of course underlying the entire process would have been the spectre of skill shortages to which job dilution and fragmentation would have been an automatic response. Employers would have also perceived and promoted these as cost saving measures. Nonetheless, the argument that Meth advanced and with which I agree was that the skills

crisis in the late 1970s and 1980s as advanced by the liberal critics of the apartheid regime was overstated. Moreover, the process confirms levels of persistence which actors used against forms of state coordination which they experienced as illogical. Against this, a form of opportunism and subversion was used to uphold market coordination.

6.2.4 Locating the Skills Development Levy

The skills development levy²⁷ at the national level only became an overt and deliberate instrument in national skills policy in South Africa through its first formal elaboration in the Green Paper on Skills Development. This was published in 1997. It was further entrenched in legislation promulgated since 1998, principally in the *Skills Development Act* and through subsequent amendments and legislation which followed thereafter. There is some writing which provides a tentative evaluation of the effectiveness of the skills development levy in national skills policy in South Africa (e.g. Paterson (2005); Kraak (2008a)). The broad consensus which exists, affirms the notion that the skills development levy is a coordination tool, instrument or mechanism in national skills policy that is wholly a product of the democratic South Africa. It is however also important to note that attempts to devise industry specific levy collecting tools was only put into practice on an extended scale after the Wiehahn Commission. However, there were instances provided through the Industrial Conciliation Act of 1956 and in collaboration with Industrial Councils where training levies in some industries was instituted.

Typically, levies took the form in some instances of a fixed amount calculated on each employee engaged in an enterprise and in other instances as a proportion of overall payroll. Strictly speaking, in the beginning (i.e. mid-1960s and early 1970s) the state played only a minimal role in the process which was underpinned by the voluntary participation of firms within specific industries. Where these initiatives were successful it did not go amiss to the policy eye of functionaries within the state that a limited role for the state in such a process was an opportunity to ensure that it would be more successful. But ultimately, industrial training was seen as the responsibility of private industry. The success of enterprise training

²⁷ This is a one percent payroll levy imposed on all firms with a turnover that is presently larger than R500 000 per annual. The levy is designed to compel firms to train and improve the skills composition of the workforce. Firms that undertake training and other approved skills development initiatives can reclaim a proportion of their training expenditure from government through their designated SETA. In theory prior to 2013 firms could claim back up to 70% of the levy for training costs. Since 2013 this has been adjusted to 69.5% although it must be stated that this is the theoretical limit for a claim. In practice because of tight regulatory conditions the proportion of returns to firms would be lower.

was therefore seen to depend on the crucial command of private industry in driving the process. This philosophy was reinforced in a pattern that mimicked the state instituting policies which had seemingly been tested earlier in practice within private sector firms. It was usually the case of the process being decentralised from overt state control with industry assuming command of training, as will be shown below.

These decentralised experiments in designated industries were allowed in terms of the Industrial Conciliation Act of 1956. The identification of the incidence of training levies affirms an argument put forward by Picard (2005) that in so far as the growth in the civil service under both the apartheid and post-apartheid regimes is concerned, there were continuities between these two phases. The specific policy capacities and results in coordination mechanisms towards training and skills development between the apartheid and post-apartheid regimes bears implications about how the successes and failures of these coordination mechanisms can be evaluated.

Since I am not aware of authors writing about the skills levy as a coordination mechanism under both the apartheid and post-apartheid regimes, there is a lot of merit in at least contrasting the process between these specific regimes. This is especially pertinent since it is often nostalgically implied that the process of training during the phase when industrial training boards (ITBs) were the principle delivery and coordination mechanisms in workplace training (stretching from the mid-1980s to the late-1990s) was comparatively more effective than under the Sector Education and Training Authorities (SETAs) which started to operate from 2000. Even if we only address this question partially, we can at least reflect on the continuities and discontinuities between the two regimes. It also allows one to situate the place that the skills development levy as a coordination mechanism in national skills policy occupies in either.

It is in fact a mechanism, tool or an instrument of coordination. It nestles between the micro-level (i.e. enterprises) and meso-level (e.g. government delivery agencies that consist of Sector Education Training Authorities (SETAs), the National Skills Fund (NSF) and the National Skills Authority (NSA)). As the work of Alexander (1995) has demonstrated, the levy-grant system allows one to conceive how the imperative of market, hierarchical and community or solidarity frameworks (mandates) come into play through financial allocations. These financial allocations are to firms, state bodies as well as organisations in the non-profit

sector. The skills development levy is a mechanism, tool or instrument that is an outcome of state building and formation. It is an entry-point or bridgehead to the formation of a national training market. It bridges the visibility of structural coordination at the micro- and meso-levels with the apparent invisibility of coordinating the entire skills development system.

Allow me to elaborate. A national skills development levy, instituted for the first time in 2000 (using legislation promulgated the year before) corresponded with a new democratic state in South Africa which began to establish new institutions to manage and direct the proceeds of monies from skills development levies to workforce training and enterprise skill formation. A similar process started tentatively after the Wiehahn Commission but had not yet evolved into a national levy-grant system by the time a new democratic regime with new institutions was installed. In both instances, these initiatives from the state was instrumental in the construction of a market for training and while initially targeting mainly businesses in the private profit-driven sector, it would ultimately grow so that its influence and impact eventually spanned all sectors: profit sector, state sector and the non-profit sector. This point has been aptly captured by Fligstein who says:

‘Indeed, any new markets that comes into existence do so under a given set of institutions. This is one of the most remarkable features of institutions: they enable newly organised actors to act. They do not just support the status quo, but allow entrepreneurs to come into existence without having to invent new ways to organise’ (Fligstein, 2001: 40).

Essentially therefore, the skills development levy in the South African context is therefore an instrument, tool or mechanism used at the behest of the state with the design of pooling resources to ensure that state implementation agencies at a meso-societal level are structurally established. These meso-level institutions are meant to support and ensure that skill formation outcomes are achieved at a micro-level. But at this micro-level, firms themselves possess the agency to give the strategy – which the state underwrites – a veneer of feasibility and success.

With respect to the skills development levy, the state has a high degree of manoeuvrability to centrally steer the skills development system or skill formation system. But steerage can imply either more overt decentralisation or more overt centralisation. Alternatively, a stronger form of cooperation and consensus can exist between the state as the hierarchical custodian of the skills development levy in the background with the implementation agencies

at the core that are responsible for skill acquisition outcomes. Firms represented through different organised national groupings would have significant input and feedback into the coordination of enterprise skill formation. In this second scenario, the skills levy has the potential of being adapted to become a more sophisticated mechanism of coordination.

6.3 State Modernisation, Apartheid Reforms and Industrial Training: Discoveries and Contingency Measures

The spontaneous conflagration of strike action by non-unionised African workers in Durban in 1973 set in motion initiatives and investigations by the state during the late 1970s to evaluate and reform the industrial relations system in South Africa. This first started with a battery of new legislation starting with the Bantu Labour Relations Act of 1973. This particular statute however did not specifically address the question of skills. Issues relating to training and skills were initially covered by the Black In-Service Training Act of 1976. These preceded the setting into motion of two important and parallel Commissions of Enquiry (Wiehahn and Riekert Commissions). The Wiehahn Commission was designed to incorporate African workers into the country's industrial relations system. The Riekert Commissions sought to create coherence into the disparate items of legislation affecting the movement of African workers throughout the country which had piled up in increasing amounts since 1948 – notwithstanding what had been on the statute books before then. These were especially in respect to urban rights for black workers outside the Bantustans. Both Commissions bore significant implications for the evolution of the industrial training of all South African workers. It is this dimension that I want to explore in more detail.

Since the apartheid system was such a reprehensible system it is hard to identify civil servants that were genuinely competent administrative managers and policy implementers without insinuating that their service was on behalf of Mephistopheles. Yet this is a question one has to broach if an effective comparison is to be made between the administrative competence and quality of the industrial training system separating the old from the new. Although huge discretionary powers was vested in the apartheid civil service, particularly with respect to the control of the black population in South Africa, a relatively small band of civil servants held the educational credentials, administrative experience and policy expertise to manage the process of the gradual reform and modernisation of the overall system. But

these civil servants were always in the shadow of their political masters and were drawn upon to patch up the system and smooth over contradictions within the limits allowed.

6.3.1 The Testimony of Jan Heunis on the Quality of State Officials that were drawn to support the Modernization and Reform Process

The process towards gradual internal reform of the apartheid system particularly in respect of ameliorating the harsh repressive conditions which conceded more scope for the training of black workers in South Africa started hesitantly under the leadership of Prime Minister John Vorster. But it was under the leadership of P.W. Botha that the process gained momentum. Even though his interpersonal relationships with his colleagues and subordinates could at times be characterised as boorish fuelled by a fiery temper and a deeply ingrained vindictiveness (see the apt description provided by Jan Heunis (2007) as well as Giliomee (2012)), P.W. Botha kick-started the modernisation and reform of the more important departments of government and organs of the state. As Jan Heunis shows in his book *The Inner Circle*, when nationalist party cabinet politicians had trust in their professional civil servant advisors, they tended to give careful consideration to the advice they received even when this went against their traditional ideological sentiments. The civil servants that were drawn to manage the stuttering but gradual state modernisation and apartheid reform process were typically drawn from the elite echelons of the Nationalist Party (NP). They were elite in the sense of NP family connections which were middle and upper middle class by background but elite also by possessing meritorious academic credentials which were capable of extending the technocratic capabilities of NP rule. Most of these were bright hard working students and some had even entered academic teaching and research.

Jan Heunis, son of Chris Heunis – who was later to become Minister of Constitutional Development and Planning – epitomises the academic and technical qualities which out of necessity was required from state officials who as it were, had to run ahead of the hounds.

In 1975 after completing his university studies, Jan Heunis joined the ‘legal section of the Department of Foreign Affairs as a rookie State Law Advisor’ (Heunis, 2007: 18). At the time the Minister of the Department was Dr. Hilgard Muller and Roelof Frederick Botha (‘Pik’) was South Africa’s ambassador to the United Nations. Heunis gives an account of his immediate superiors at the legal section of the Foreign Affairs Department in 1976:

‘The legal section comprised John Viall, who was Chief State Law Advisor, and Piet Oelofson and George Barrie, who were Viall’s deputies. Viall was an exceptionally studious person with a keen intellect, and one of the best law advisors I ever had the privilege to work with. Both Oelofson and Barrie were former professors of law, Oelofson at the University of Natal and Barrie at the Rand Afrikaans University. They were also legal scholars of note, and I learned a lot from all three of them’ (Heunis, 2007: 19-20).

In 1977, Hilgard Muller resigned from active politics and John Vorster appointed Pik Botha as his successor (Heunis, 2007: 20). Heunis gives some insight into the manner Botha started assembling his technical and administrative teams in the Department:

‘Following his appointment, Pik wasted no time in surrounding himself with some of the most competent officials in the Department of Foreign Affairs, such as Neil van Heerden, Derek Auret and Herbert Beukes.

‘To his credit, Pik was not intimidated by sharp minds. He used them to his best advantage although he did overlook the most competent official in the Department of Foreign Affairs at the time, Sean Cleary, later political counsel at the South African embassy in Washington, was once described to me by an American visitor to South Africa at a function held by Herman Nickel, the then American ambassador to South Africa, as the most skilful diplomat ever to work on the Hill – a reference to Capitol Hill in Washington’ (Heunis, 2007: 20-21)

Heunis described the managerial style of Pik Botha in the following terms:

‘What made it easy for a law adviser to work for him was that he never second-guessed advice based on his own knowledge of the law. What made it difficult was his tremendous energy and drive. He lived hard and fast, frequently drinking too much even on the eve of major international events, such as meetings of the Security Council at which he was scheduled to speak’ (Heunis, 2007: 24).

In 1984 after the adoption of the Tri-cameral Constitution, Jan Heunis left the Department of Foreign Affairs to take up the position of Chief State Law Advisor in the State President’s Office. When P.W. Botha became executive President of the Republic of South Africa holding greater powers than he previously held as a Prime Minister, it resulted in a significant expansion of the staff complement in his office. One of the new positions that arose was that of a Chief State Law Advisor²⁸.

During the last years of the apartheid system, Chris Heunis, a more enlightened member (‘verligte’) of P.W. Botha’s cabinet was Minister of Constitutional Development and Planning. This Department had the task of investigating constitutional pathways which had

²⁸ This background is drawn from Heunis (2007: chapter 4)

the potential of addressing the exclusion of the African majority from the political process. Similar to Departments such as Foreign Affairs, the Department of Constitutional Development put a high premium on obtaining the services of efficient and effective civil servants but civil servants that appeared mainly in the guise of state law advisors or advisors on government and politics. If one merely examines the subsequent career trajectories of these individuals after they had left the civil service, it provides a useful comparison to the intellect of civil servants who were similarly placed in other reform oriented Departments of government such as the Department of Labour from which tentative proposals for the design of levy paying mechanisms on training emerged. Heunis writes:

‘My father was the Minister of Constitutional Development and Planning during the first half of the 1980s. Fanie Cloete was one of his senior advisers during this time. He is now a professor at the University of Stellenbosch. Ich Rautenbach and Rassie Malherbe, other senior advisers, are now professors of law at the University of Johannesburg (formerly the Rand Afrikaans University). The director-general, Andreas van Wyk, became the vice chancellor and rector of the University of Stellenbosch. Willie Breytenbach, another senior official, is also a professor at Stellenbosch University (Heunis, 2007: 123)

Anyone who reads government policy documents for any given period but more particularly documents covering the period of state modernisation and apartheid reform (1974-1989) will clearly notice the pivotal role which state advisors played in supporting departmental ministers and state leaders who purportedly held a reform agenda. This was especially noticeable in South African ministerial and government departments that were under the control of ‘verligte’ or reform minded ministers. In principle these advisors were shaped by the disciplinary orientation of the problems that their counsel addressed. Typically these advisers were classified as state law advisers and economic advisers but they could also have been designated as scientific advisers. Most of the government ministries, departments and agencies that were orientated to reform and modernisation measures were embedded in fields where there was an intersection of economic, political and sociological interests (essentially the challenge of a specific political economy). Legal and economic discourse held elevated importance in guiding their ministers through the complex policy maze and potentially new institutional architecture which such a process necessitated. In the case of Jan Heunis and his civil servant colleagues at the Department of Foreign Affairs, state law advisers were the principal technocrats supporting ‘verligte’ government ministers in treading a path towards some apartheid reform. Apart from Pik Botha at Foreign Affairs and Chris Heunis at Constitutional Development and Planning, a verligte member of John Vorster’s cabinet, S.P.

Botha ('Fanie') was in charge of the Ministry of Labour and of course the Department of Labour which it oversaw.

6.3.2 Background to the Main Protagonists Driving the Wiehahn and Riekert Commissions

Shortly after his appointment as Minister of Labour in the cabinet of John Vorster, Stephanus P. ('Fanie') Botha started installing new staff within his ministry and Department who were more sympathetic to his ideas. He replaced Ben Lindeque as Labour Secretary – putting him on early retirement – with Jaap Cilliers. Jaap Cilliers was a divisional labour inspector for Port Elizabeth and a friend of Wiehahn (Friedman, 1987).

Nicolas Wiehahn a former railway worker who had started his academic career at the University of Port Elizabeth was appointed advisor to Minister Fanie Botha in 1976. At the time a professor at the School of Business Leadership at the University of South Africa in Pretoria, Wiehahn was relatively unknown. In May 1977 at the behest of Fanie Botha, Wiehahn was appointed to lead a Commission of Enquiry into the reform of labour legislation in South Africa. To mitigate the unregulated participation of African workers in industrial relations disputes – which was perhaps the most pivotal lesson which wise counsel within the apartheid State could draw from the Durban strikes of 1973 in particular – a burning necessity for industrial relations reform in South Africa – legislative reform had to be provided for African worker participation in trade union organisation with a degree of state oversight and control over their activities. As a result of this work on the Commission, Nicolas Wiehahn rose significantly in stature, a rise which 'soon installed him' in the words of Steven Friedman 'as a folk hero among employers and government reformers' (Friedman, 1987: 149).

As was the case for Jan Heunis discussed earlier in this chapter, modernising and reform minded politicians within the Nationalist Party systematically drew upon strategic advisers and policy thinkers from networks within their own ranks. Many of these individuals were themselves second and third generation offspring of earlier Afrikaner nationalist ideologues who had the advantage of undergoing training in the strategic policy disciplines (incorporating especially high concentrations of academic and professional training in law and economics) upon which a crisis-ridden apartheid political economy was becoming more dependent as a navigation tool towards calmer waters. These individuals also constituted a

broad network and had a propensity of showing degrees of abhorrence to many of the petty and crude segregationist features of apartheid. As students of the policy sciences, these individuals also understood the bigger picture. As agents of those who wielded power and as servants of the state, their function was to ensure the maintenance of power and control in the growth and reform of institutions through which society was organised in South Africa. As a last resort, as their post-apartheid testimonials indicate, many would jettison the ideologies to which they were historically accustomed.

Many of these individuals were either ensconced within the Afrikaner medium universities or bore a close alumni relationship with these institutions. Once the reform process began, hesitantly but more pronounced after the Durban strikes of 1973, Fanie Botha, also appointed Wiehahn Commissioner, P.J. (Petrus Jacobus) Van der Merwe to the position of deputy-director of the Department of Labour. When the National Manpower Commission was established on the recommendations of the Wiehahn Commission, another former University of Pretoria economist, Hennie Reynders was appointed chairman with P.J. Van der Merwe as vice-chairman²⁹. As reform minded state officials many of these individuals held either higher university degrees or doctoral qualifications.

P.J. Van der Merwe's inclusion in the apartheid labour market reform process is fascinating. From the late 1960s Van der Merwe was a staff member in the Department of Economics at the University of Pretoria. He was awarded a doctorate in economics from the same university for a thesis titled: *The Bantu Labour Market in South Africa*³⁰. In his foreword to the thesis, Van der Merwe acknowledged the influence of P.J. Riekert, at the time economic advisor to Prime Minister Vorster, for encouraging him to pursue this study and for showing an interest in his progress. Van der Merwe proceeded to contribute significant articles and papers on the dynamics of the South African labour market. Riekert was subsequently appointed the chairman and only member of the *Commission of Inquiry into Legislation Affecting the Utilisation of Manpower*. As a commissioner on the Commission of Inquiry into Labour Legislation (Wiehahn Commission), P.J. Van der Merwe consulted extensively with Pieter Jacobus Riekert on specific matters involving coordination between the two Commissions. As the Riekert Commission noted:

²⁹ This background is drawn from Friedman (1987: 174&177).

³⁰ Original author and title: Petrus Jacobus Van der Merwe (1971) *Die Bantoe-Arbeitsmark in Suid Afrika*. Unpublished D.Phil. Thesis in Economics, University of Pretoria, Parts 1&2.

‘The Commission did find it necessary to discuss fully its approaches, findings and recommendations in respect of certain areas of contact between its terms of reference and those of the Commission of Inquiry into Labour Legislation (Wiehahn Commission) with the Chairman of the latter Commission in order to delimit each Commission’s sphere and to ensure co-ordination. Continuous co-ordination was possible because Professor P.J. van der Merwe, a Commissioner of the Wiehahn Commission, also assisted with drawing up this report’ (Riekert Commission, 1979: para. 1.5)

6.3.3 Precedents to Levy Financed Training and the Riekert and Wiehahn Commissions

The reform measures and shifts in industrial training policy were not perpetuated solely as a result of the recommendations stemming from the Wiehahn and Riekert Commissions. Although very little has been written about this episode, there is sufficient evidence to reconstruct the picture depicting the plethora of schemes that were conceived to eliminate contradictions and crises which contributed to renewing the industrial training system. From the description of the system given in the Riekert Report, it mirrored a rather ramshackle entity before the ending of Union in 1961 to an octopus with many tentacles during the apartheid Republic. It was to this broad and uneven system that the Riekert and Wiehahn Commissions recommended drastic pruning and consolidation. The results of this pruning and consolidation only became evident with the promulgation of the Manpower Training Act of 1981 (Act No. 56). However, even before the findings of the Riekert and Wiehahn Commissions were presented, a whole spectrum of actions and legislative instruments which coordinated industrial training policy and forms of levy-based funding for workplace training purposes came into operation.

6.3.4 Riekert

The Riekert Commission provides quite a detailed and precise documentation of sometimes half-hearted and incomplete attempts to design training schemes for black South Africans. In this process the burden was not solely borne by the state. In a very crude and elementary form, these attempts predated a system of levy-financed training borne mainly by employers which evolved after some of the findings of the Wiehahn Commission was adopted by the South African government in the early 1980s. To establish a record of the actual initiatives on the road to the design of a mechanism, tool or instrument in the form of a training levy that could be adopted in a more systematic and wholesale manner, it is necessary to capture

some of the initiatives which different government departments and agencies of the apartheid government had started to experiment in the late 1960s and early 1970s.

The full report of the Riekert Commission was released in 1979. In the same year, the first of six reports of the Wiehahn Commission was also released. But the Wiehahn Commission would still convene for a further two years before the release of its fifth and sixth reports in 1981. The first Wiehahn report (RP 47/1979) was however presented as a framework to a future industrial relations system in South Africa. The second Wiehahn report (RP 38/1980 and referred to as Part 2), released in 1980, dealt with the subject of 'Training' in South Africa. The second report provides greater detail and substance of the concerns around 'vocational training' and 'skill formation' which the Riekert Commission discussed. On matters of vocational training policy, both Commissions represented a common starting point and framework. Apart from putting forward recommendations for the place of black workers in a future training dispensation in South Africa, the Riekert Commission presented a systematic overview and evaluation of training initiatives for black workers which was in operation at the time of the Commission's tenure (1977-1979).

The major item of legislation operating at the time, pertaining to black workers in South Africa was the Black Employees In-Service Training Act of 1976. But even before the promulgation of the Black Employees In-Service Training Act, significant tax allowances for the training of black workers was provided in the 1974 national budget. These provisions were channelled through the Income Tax Act of 1974 (See NDMF, 1975). The Black Employees In-Service Training Act was administered by the Department of Education and Training. Its promulgation sparked a mini-training revolution in progressive companies in South Africa. It would not be amiss to conclude that it kick-started initiatives to reform the South African industrial relations and vocational training system after the Durban strikes of 1973. However the authorities at the time (including chairman Riekert) advance different explanations for its promulgation. The Black Employees In-Service Training Act gave prominence and leverage to personnel departments in progressive companies in South Africa to employ personnel managers and training officers to oversee the coordination of the training and skilling of mostly unskilled black employees. The occupational position of the training manager or training officer represented a real occupational and career ladder protruding into corporations for individuals occupying these positions. The Act contained three cogs: first it provided government funding to public training centres; second, it provided

tax-incentives for companies that invested and made use of private training centres and private training schemes (Riekert Commission, para.3.365); third, it introduced the idea or notion of training schemes which could be financed through levies on employers.

The training arena thus became a new occupational field which higher education graduates could potentially enter and cement their places within the managerial and technical occupational ladder within firms. It also enabled universities throughout the country to extend the curriculum so that future industrial training managers and practitioners were able to acquire theoretical training and earn recognised qualifications to operate in the field. At the white Afrikaans universities, such potential industrial training practitioners acquired their disciplinary grounding in Psychology and Industrial Psychology (see Schreuder, 2001: 3-4). At the liberal English universities navigation into the field could potentially occur through a number of disciplines including psychology, industrial psychology, adult education and industrial sociology³¹. By the late eighties many honours dissertations in industrial sociology dealt with different aspects of enterprise training within private firms and state-owned enterprises and other public organisations (e.g. city municipalities).

The idea of public manual training centres, private industrial training centres as well as the ‘introduction of a tax concession scheme with a view to partial defrayment of training costs incurred by industrialists’ (Riekert Commission, para.3.367) grew out of government’s decentralisation policies and according to the Riekert Commission could be dated as far back as 1970. As it was explained by the the Riekert Commission:

‘A subsidised in-service training scheme for the training of factory operatives to meet the needs of specific industrialists was instituted in 1969 by the Department of Education and Training to provide financial aid for industrialists who erected decentralised factories in border areas. The industrialists provide a training centre, specialised equipment and material. The Department of Education and Training provides financial assistance by paying subsidies on the salaries of instructors at a rate equal to the basic salary payable to a teacher having similar qualifications employed by the Department of Education and Training (Riekert Commission, 1979: para.3.373).

Using international practice as a barometer of the potential to the introduction of training levies in South Africa, the Riekert Commission devoted quite a lot of attention to the

³¹ These were career options that were available and which some of my university student colleagues earnestly pursued during the 1980s.

payment of levies by employers. But in any event as the Commission observed a precedent for such a process was already embodied in South African law through the Industrial Conciliation Act of 1956, an Act which also governed the functioning of Industrial Councils which were the institutions best placed to formalise a levy-payment system for industrial training.

‘The principal that employers should, on an industrial basis, pay levies in respect of the in-service training of workers for particular industries is generally accepted in various countries of the world, and in South Africa is embodied in section 48 of the Industrial Conciliation Act, 1956. In the United Kingdom, for example, all firms have to pay a training levy equivalent to one per cent of their total pay-roll, unless they have specifically been granted exemption. In France there are two training levies, namely 0.5 per cent of the total pay-roll in respect of apprentices and 2 per cent in respect of other workers. In West Germany employers and employees must together pay 1.8 per cent of the total pay-roll in the form of a training levy’ (Riekert Commission, 1979: para. 4.477 (l)).

Placing the onus on employers to administer the funds that would be used to train their own workers meant that employers would take a greater responsibility in ensuring that the vocational training process had higher prospects for success.

‘Levies for training purposes should be collected by industrial councils or governing bodies of training centres themselves, and not by a Government body, as is at present the case where certain levies are collected by administration boards and paid over to governing bodies. The underlying principle is that employers’ organisations themselves should accept all the responsibilities, including the collection of levies associated with the training of their workers’. (Riekert Commission, 1979: para. 4.477 (m))

Ultimately, as the Riekert Commission recommended, levy-financed training schemes in respect of the in-service training of black workers should replace tax-incentive schemes.

‘The responsibility of the in-service training of workers should be placed primarily on the shoulders of employers and tax and other concessions, etc., for the promotion of such training should be regarded only as temporary measures that should be phased out as quickly as possible. In this connection industrial councils should be motivated to establish training schemes themselves and to impose levies on employers in accordance of the provisions of section 48 of the Industrial Conciliation Act, 1956. For this purpose it should be made possible for industrial councils or governing bodies to acquire the existing training centres, where possible, on the basis of costs of erection’ (Riekert Commission, 1979: para. 4.478 (g)).

The de facto involvement of a large number of industrial councils in sponsoring and encouraging the formation of industrial training boards certainly influenced the place Riekert

accorded to industrial councils as the institutional vehicle that was best placed to coordinate the imposition and collection of an employer funded training levy scheme.

‘Industrial councils should be encouraged to establish training schemes and to impose levies on firms for training purposes. The collection of levies should be undertaken by industrial councils themselves’ (Riekert Commission, 1979: para.4478 (k)).

In terms of the statutory outcomes that stemmed from its commission, as well as deferring to the Wiehahn Commission, the Riekert Commission foresaw the fragmentary statutory framework of the time (1979) being replaced by ‘a non-discriminatory consolidated statutory framework relating to manpower matters in respect of all population groups’ (para. 6.13). As well as anticipating a single Act to regulate labour relations and a single Act for the social security of workers, Riekert also foresaw a single Act which would deal with employment and training matters. It would consolidate: the Black Labour Act of 1964, the Black Employees In-Service Training Act of 1976, the Apprenticeship Act of 1944, the Training of Artisans Act of 1951 and the Registration of Employment Act of 1945. After the White Paper which followed the Wiehahn Commission in the following year, this would become known as the Manpower Training Act of 1981.

6.3.5 Wiehahn

The Wiehahn Commission had a narrower but more specific mandate compared to the Riekert Commission. In a nutshell, its concern was to consolidate and coordinate labour market policy, labour legislation and identify and assist in eliminating critical bottlenecks within the ambit of the existing political structure – which prevailed in the late 1970s as PW Botha assumed power. In the broader political economy of national governments which confronted similar political reforms to the existing dispensations, the Wiehahn Commission and its reform agenda could arguably be compared with the reforms of a similar gravity particularly in pre-revolutionary France and pre-Revolutionary Russia. In view of the dormant 1960s after the Sharpsville resistance, the worker and student struggles of the 1970s signified the possibility that a revolution could displace apartheid and white minority rule in South Africa. This was clear to friend and foe of the NP regime. The Wiehahn reforms coupled with the failed political reforms to institutionalise a tri-cameral parliamentary system in South Africa bore parallels to the Turgot and Stolypin reforms in France and Russia respectively.

However these reforms in France and Russia failed and were overcome by the revolutionary overthrow of the existing political establishment. The reforms in question were the Turgot reforms creating the 'liberty of labour' in 1776 that abolished state control on trade and craft guilds. Turgot's reforms also attempted to abolish royal corvée and spread the tax burden from the peasantry and transfer some of it onto land proprietors (Pierre Goubert, 1988). In Russia there were the Stolypin reforms of 1907 which were instituted after the abortive revolution of 1905. These involved a scheme to uplift the peasantry and broaden the social base for the reform and modernisation of Czarism in Russia shifting it from an absolute monarchy to a constitutional monarchy. Improvements to peasant agriculture that included increases in productivity and the encouragement of individual initiative among the peasantry, was seen as crucial. Instead of embarking on outright expropriation of the 130 000 large and medium sized landlord properties, which for him and the nobles remained inviolable, Stolypin's solution was to dismantle the village commune which conservative opinion in Russia had characterised as a 'socialist institution and source of sedition' (Gooding, 1996: 112). The idea was that once the peasantry had property of their own, they would become hard-working and respect the property rights of others. As Gooding notes, for this to be successful, peasant rights to land had to be converted into private property and the scattered landholding strips which they worked 'had to be consolidated into a compact enclosed farm' (Gooding, 1996: 112). In Russia, the implementation of this process largely failed. Poor peasants, who were not the target of the initiative, responded in droves by selling their strips and getting off the land altogether. Those who wanted to become independent farmers found their passage blocked by the refusal of the commune authorities to let their strips be consolidated (Gooding, 1996: 112). Thus Gooding observes that between 1906 and 1916 little more than 20% of households with communal tenure applied for private property rights. When the February 1917 Revolution broke out, the Russian agrarian economy was still an economy of strip farming and only 10% of peasant households had entered independent farming. The peasants themselves rejected the Stolypin reforms. But the nobility too withdrew their initial support for Stolypin's peasant-monarchist reform in the Duma and frustrated his tenure as Prime Minister. Even before his assassination in the Kiev Opera House in September 1911, Stolypin faced imminent dismissal as Prime Minister (Gooding, 1996: 115).

Unlike Turgot and Stolypin, Wiehahn's stature in the eyes of the regime and the overwhelming majority of employers in South Africa was unsullied. It was immensely

enhanced after each instalment of the Commission's reports. However, Wiehahn did relate a tale to Clive Thompson about the actions of one particular detractor in Pretoria. After referring to Wiehahn as a 'decidedly larger-than-life figure, he was and probably remains affable, visionary, supremely confident and egotistical' (Thompson, 2004: vii), Thompson immediately qualifies his portrait of Wiehahn with the following note captured in a footnote. He writes:

'The Wiehahn phenomenon spawned a cottage industry of commissions, and I had the interesting experience of serving in his tenth one, tasked with the reform of the dismal labour laws of the Transkei. Wiehahn took great glee in recounting to co-commissioner Halton Cheadle and me how, one day, walking confidently down a Pretoria street nattily dressed in a cream suit and sporting his signature bowtie and matching handkerchief, he was approached by a complete stranger and asked whether he was "the" Wiehahn. When he cheerfully confirmed that he was, instead of receiving what by now had become the customary reverential word of praise from yet another member of his admiring public, he was unceremoniously dumped on the seat of his pants and told, "That's for stuffing up the country" (Thompson, 2004: vii, note 7).

6.4 Inter-related Influences on Wiehahn and Riekert and the elevation of Coordination

The Wiehahn reforms in South Africa set into motion the process of the gradual democratisation and the awarding of rights to the broader segment of the South African labour force. In terms of the vocational training system, the motivation for the Wiehahn (and the Riekert) reforms centred on *two interrelated influences*. The first of these was *international best-practice* that was seen as appropriate for modelling a modern industrial training system in South Africa. Many of the insightful Commissions of Inquiry which had been undertaken in South Africa were often chaired by jurists or economists who themselves could be classified as intellectuals in their own right. More particularly when the subject matter of the Commission of Inquiry called for a departure from the old ways of thinking (e.g. university financing, the reform of the tax system, exchange rate policy, monopolistic policy or in the case of Riekert and Wiehahn, the problem of labour migration and mobility and the extension of labour legislation and the inclusion and incorporation of black workers into the industrial relations system), its commission chairmen and a number of its commissioners generally (see Giliomee's (2012: 153) discussion of the differences between reform and conservative commissioners on the Wiehahn Commission) rose to the occasion by

inducting themselves in the academic and policy literature which emerged from what they considered the free world and nations with democratic dispensations. This in itself is the starkest irony but is verified in bibliographical references especially that listed for the Riekert and Wiehahn Commissions.

The second influence which had already largely begun to shape the content and the practice of industrial training in South Africa were the *concrete conditions in South Africa*. These concrete conditions gave expression to policy responses from the apartheid state to the requirements for industrial training by employers and black people in general. In the more radical neo-Marxist nomenclature of the late 1970s and 1980s this would have been referred to as the 'current conjuncture' (see Poulantzas, 1973: 93-98; Althusser & Balibar, 1970). As the evidence of Riekert showed, the conjuncture of the late 1960s and 1970s contributed to the formation of an industrial training octopus which he and Wiehahn set about to streamline. The Riekert and Wiehahn Commissions did not refrain from reiterating the common strand to both Inquiries which was an attempt to coordinate and simplify the policy terrain each was mandated to investigate. This was expressed as follows in the report of the Wiehahn Commission:

'It is obvious from this Report and from the Riekert Report that over the years the industrial training dispensation has developed into a rather complex network of legislation administered by a multiplicity of Government departments and other bodies. The inevitable consequences are overlapping and gaps, lack of standardisation and co-ordination and dissipation of scarce resources in terms of money, manpower and time. There has also been a proliferation of training programmes produced by various institutions, giving rise to problems in regard to co-ordination of policy formulation and planning. Countries such as Sweden, France, West Germany, Eire, the United Kingdom and Australia have all addressed themselves to the problem of fragmentation of the training system. A recent study by the National Productivity Institute indicates that these countries have all found the solution to be the consolidation of training under one body which is so constituted as to maximise the impact of training on the economy. This body assumes different forms in the various countries, but in all cases it is the only national body involved in training, overseeing the whole spectrum of training in the particular country. The time has obviously come for South Africa also to simplify, rationalise and consolidate its training system so far as legislation, administration and facilities are concerned'(WC 2, 1980, para. 3.53)

It is clear from the above that both Riekert and Wiehahn adhered to the principle of streamlined policy.

Established in 1977, the first of six reports to the Wiehahn Commission was released in 1979. Five additional reports were subsequently released in 1980 and 1981. Each report was rapidly followed by a sequence of government White Papers. For the purpose of this thesis, the first (RP 47/1979) and second (RP 38/1980) reports to the Wiehahn Commission are of primary importance.

6.4.1 Conceptions of Policy Coordination in the Wiehahn Commission

In submitting Part 1 as ‘Key Issues’, the Commission postulated a different conception of coordination to what appears in Part 2, particularly in respect of vocational education and training³². In Part 1 or WC1, the Commission deploys a conception of coordination which has a strong orientation towards policy coordination. In WC2, as will subsequently be shown, the conception of coordination is one of institutional coordination.

WC1 embarked upon this policy coordination trajectory by first proposing a name change to the existing national Department of Labour. The Commission then proceeds to discuss the issue of a national coordinating and advisory body and recommend that as an ameliorate to the heavier demands which the Department of Labour carries in terms of labour administration, a separation is established between the recommended coordination body and the department. Such a body was seen as necessary to improve the state’s prognostic function of the ‘future planning, rationalisation and development of manpower in the country’ (WC1, 1979: para. 2.19). The implication was drawn that requirements for a more dynamic role for the state (WC1, para. 2.22) which went beyond the normal administrative and regulatory role which the Department of Labour played was necessary. This necessity was to be curtailed by the abiding ‘principle that the state would however exert as little intervention as possible in the relationship between employer and employee (WC1, 1979: para. 2.22).

Using the evidence of witnesses, WC1 held the unambiguous opinion that the State should introduce active policies and programmes in regard to: (i) the training and retraining of workers; (ii) the creation of employment opportunities; (iii) the provision of labour market facilities and services; (iv) research; (v) ongoing evaluation of the efficiency of labour market

³² The abbreviation WC1 and WC2 will respectively be used to distinguish between the first report or Part 1 and the second report or Part 2 of the Wiehahn Commission.

programmes and the review of labour policy, legislation and administrative practice; and finally (vi) the preservation and promotion of industrial peace (WC1, 1979: para. 2.22). The third point elaborated above embodies the overall thrust of the policy coordination conception in WC1 and to clarify the matter further, a verbatim reproduction of the point made in the Commission report is useful:

- ‘The provision of labour market facilities and services to promote and facilitate:
- (a) the functioning of the labour market in ensuring the availability of the right quantity of labour of the right quality at the right place and at the right time, i.e. the coordination of supply and demand;
 - (b) genuine freedom of choice by workers; and
 - (c) the optimal utilisation of available manpower resources’. [WC1, 1979: para. 2.22 (iii)].

The Commission invoked comparative international experiences in which national bodies had been established, in order to advise on labour matters. These countries included: Belgium, the Netherlands, France, Italy, the United Kingdom and New Zealand. Further examples were said to exist in countries such as Cameroon, Mauritania, Senegal, Zaire, Malaysia and Sierre Leone. The Commission then proceeded to recount the historical evolution of policy coordination in South Africa (WC1, 1979: para.2.24). A summarised version of this evidence is replicated here.

Soon after the Department of Labour was formed, an Advisory Council of Labour was established in South Africa in 1924. These were institutional designs and reforms that were instituted after the suppression of the white mine-workers rebellion on the Witwatersrand in 1922. Its objective was to investigate labour matters across the industries and sectors of the national economy. Immediately thereafter, the Advisory Council of Labour established specialist committees to examine immediate concerns of the period such as ‘unemployment, labour conditions on the alluvial diggings, registration of trade unions, poor relief and labour legislation’(WC1, 1979: para.2.25). In 1930, after 13 meetings, the Advisory Council became defunct. It was later resuscitated by the Minister of Labour in 1937 and its functions remained consultative and advisory. It continued to function in this way until 1941. The absence of records of its existence, suggest that it was again dormant between 1942 and 1945. Three meetings of the Advisory Council of Labour which then consisted of 20 members with seven alternates took place in 1946. But after 1946, as the Wiehahn Commission noted, ‘the Council was never convened again and no record of the dissolution of the Council can be traced’(WC1, 1979: para. 2.26).

A completely different type of body which gave ‘a great deal of attention to manpower matters’ came into existence when South Africa became a republic in 1961 and was known as the *Prime Minister’s Economic Advisory Council*. From time to time it launched investigations into specific aspects of labour policy such as education and training. In 1968 a working committee on manpower training was appointed by the Council to report on training programmes in various sectors of the economy. The intention of appointing such a committee was to monitor progress as well as stimulate further training efforts (WC1, 1979: para. 2.27). In 1970, the *Committee for the Better Utilisation of Manpower* which drew representatives from the Economic Advisory Council was established. Its task was to advise the Economic Advisory Council ‘on the better utilisation of manpower’ within the framework of apartheid government policy (WC1, 1979: para. 2.28). The Secretary of Labour acted as the convener of the Committee for the Better Utilisation of Manpower. Representatives of the Department of Physical Planning and Bantu Administration and Development were co-opted to the Committee. Subsequently, membership to the Committee was extended to include representatives of the South African Railways, the National Productivity Institute, the Human Sciences Research Council, the economic advisor to the Prime Minister and other Government Departments (WC1, 1979: para.2.28). Early in February 1979, the Economic Advisory Council recommended that the Committee for the Better Utilisation of Manpower should function as the standing committee of the Economic Advisory Council. This function also meant that it would incorporate the Working Committee on Manpower Training (WC2, 1980: para. 1.9).

In the second Wiehahn Report (WC2) more detail is given of the three core objectives for the Committee for the Better Utilisation of Manpower. These three objectives consisted of: (a) The compilation of a manpower balance sheet; (b) The supplementation and upgrading of White labour; (c) The upgrading and greater employment of Non-White labour (WC2, para. 1.9). According to the Commission, the task of compiling a manpower balance sheet was assigned to the Human Sciences Research Council. Many of its reports and publications during this period were guided by the logic of manpower planning within a framework of racial discrimination. In fact manpower planning at the time was the dominant discourse infusing education change even on the African continent (see Cash, 1965). Unpacking briefly two interrelated items to the second and third objectives of the Committee for the

Better Utilisation of Manpower, WC2 states that (apart from encouraging accelerated immigration) with respect to the upgrading of White labour, the Committee provided:

‘Encouragement of the utilisation of White labour in more productive directions’ (WC2, para. 1.9 [b] [ii]).

Similarly, with respect to the upgrading and greater employment of Non-White labour, the Committee encouraged:

‘The employment of Blacks in more advanced semi-skilled work together with the upgrading of White labour from such occupations by means of collective bargaining in consultation with trade unions or the Divisional Inspector of Labour where there were no industrial councils’ (WC2, para.1.9 [c] [ii])

The two arms of the intervention meant that the definition of skill within the labour process would have to be redefined so that previous high level skills could be performed by ‘semi-skilled’ black workers. Such forms of work reclassification would have required the trust and support of the white artisan trade unions to succeed but in most instances they rebelled against it. Later however to ensure their survival, the white unions organised either parallel unions for ‘non-white’ workers or began to actively recruit skilled black workers (see Webster, 1985, chapter 7). Significantly, this was largely the electoral constituency that the Nationalist Party government drew upon to maintain power. The literature of the period often captured the contradictory signals which appeared to shape such policies by government. Questions were often asked whether the crisis of skill was real or whether it was a mask to entrench the interests of big business (Meth, 1979; Webster, 1985, chapter 7 considers the views of the actors on the ground). As we examine the policy coordination process that shaped firm and enterprise-level skill outcomes in South Africa in the period prior to Wiehahn, it is quite apparent that the flow of expert recommendations was being constantly made available to help coordinate and steer government policy implementation during this period. Policy coordination was rationally formulated and systematically transmitted to the institutions that had the task of implementing the policy. But whether these policies were implemented in such a clinical and rational manner is an altogether different and debatable question. In 1971 the Committee for the Better Utilisation of Manpower became a standing committee to the Economic Advisory Council.

The introduction of schemes for a system of ‘tax incentives for approved training schemes’ according to WC1, was ‘a direct outcome of the recommendations made by the Committee

for the Better Utilisation of Manpower which was forwarded to the Economic Advisory Council' (WC1, para. 2.31). The idea of a National Manpower Commission rose from the work that the Committee for the Better Utilisation of Manpower had done from its inception in 1970. Witnesses to the Wiehahn Commission posed the question of an expanded national role with a higher statutory status for the Committee for the Better Utilisation of Manpower and recommended that the Wiehahn Commission consider this idea further. It led to the Wiehahn Commission recommending the establishment of a national tripartite coordinating body (WC1, para. 2.32) that could perform an advisory role and report annually to the Minister of Labour on the factual labour situation in the country and on its activities. This led to the Wiehahn Commission recommending the establishment of a *National Manpower Commission* which came into being shortly after in 1979³³. Due to the importance and urgency attached to its establishment, the National Manpower Commission was established by Ministerial decree. On this matter the Wiehahn Commission recommended that:

'the Committee for the Better Utilisation of Manpower be dissolved with effect from the date upon which the National Manpower Commission is constituted; further, in the interests of the co-ordination and integration of labour policy and programmes with overall economic policies and programmes, that the chairman of the National Manpower Commission shall have a seat on the Economic Advisory Council and prepare reports on the labour situation for the Economic Advisory Council; and that

'the National Manpower Commission shall report regularly and shall submit an annual report to the Minister of Labour on the Commission's activities and the labour situation in the Republic' (WC1, 1979: para. 2.45.12 & 2.45.13)

Except for pointing out that the 'National Manpower Commission will have to guard against encroaching unduly on the territory of the Department of Labour' (White Paper to WC1, 1979: para. 5.2.3), the above recommendation of the Wiehahn Commission was wholly endorsed by the Nationalist Party government in the White Paper released in response to WC1.

The establishment of the National Manpower Commission set in motion a process for the design and invention of radically new institutions for the coordination of the vocational training and skill formation dispensation in the late apartheid period. **1979** can therefore be postulated as the historical rupture and the date that can be used for a periodization to the

³³ WC1 was submitted to the South African government on the 19th of February 1979. A short while later the White Paper to WC1 was released. The National Manpower Commission was established by Ministerial decree and subsumed the Committee for the Better Utilisation of Manpower. Its first annual report covered the period 1979/1980.

modernisation and reform process under the late apartheid period, particularly in respect of the vocational training system and the coordination process that was set up to make it work as effectively as possible. This rupture could only have occurred after the findings of the Wiehahn Commission were submitted to government. Most of the findings of WC1 were adopted in the subsequent White Paper to WC1 following the first report of the Wiehahn Commission.

6.4.2 Conceptions of Institutional Coordination in the Wiehahn Commission

The second report to the Wiehahn Commission dealt with ‘Training’. Chapters in WC2 were devoted to human resources development and industrial relations training in South Africa [Wiehahn Commission, 1980 hereafter referred to as WC2 (1980)]

The initial conditions to influence and shape the adoption of international best practice into the vocational training system in South Africa came about through attempts within the industrial training lobby in the country to align policy-borrowing and imitation of institutional designs to what was considered appropriate international best-practice. Moreover, best-practice appropriated from the closest colonial country relative to South Africa, directed attention to the United Kingdom³⁴ and the progress that had been achieved there with the design of its own vocational training system. From a South African perspective this meant examining the evolution and progress of recent United Kingdom training reforms and institutional designs. Thus reforms and designs that occurred after the promulgation of the British 1964 Industrial Training Act generated intense interest. These were reforms that were instituted under the reign of Harold Wilson’s Labour Party government in the United Kingdom. Reference was also made to the industrial training regime in the United States where the Manpower Training Development Act of 1962 served as an exemplar of best-practice and a model from which lessons for South Africa could be gleaned (HSRC/NTB, 1989: 23).

³⁴ From the end of the Anglo-Boer War of 1899-1902 until the formation of the Union of South Africa in 1910, the unified South Africa was a British colony. The Cape Province and the province of Natal became British possessions and colonies during the 19th century. From 1910, until the declaration of South Africa as a republic under the leadership of Hendrick Verwoerd in 1961, South Africa like Australia, New Zealand and Canada today, was a British dominion.

In the words of WC2 as ‘a result of criticisms levelled at the apprenticeship system’ (WC 2, 1980: para.2.39), the National Apprenticeship Board which performed coordinating and policy functions and had the role of advising the Minister of Labour on all apprenticeship matters was requested in the mid-1960s to address these criticisms and submit recommendations for improvement (WC 2, 1980: para. 2.39). The Wiehahn Commission however did not elaborate the content of these criticisms but the veiled responses from some employers suggest that it concerned issues of funding as well as the tempo at which the apprenticeship system produced skilled artisans and other lower level skilled workers.

It is necessary to reiterate that the activities of Apprenticeship Committees and the National Apprenticeship Board, was regulated by the Apprenticeship Act of 1944. Subsequent proposals and actions in 1967 among employers signalled support for a quest toward new institutional configurations that diverged from existing training policies then in existence. The existing policies were framed by the ‘Verwoerdian’ application of apartheid. In response, the National Apprenticeship Board presented a unanimous finding that the present industrial training system in South Africa was sound (Wiehahn Commission, 1980, para. 2.39). Despite this, the Board of the Steel and Engineering Industries Federation of South Africa (SEIFSA) submitted details of a training scheme designed to increase the tempo of apprenticeship training by making use of training levies. This proposal was designed to mitigate free-riding and prevent the appropriation of skilled personnel by employers (a practice referred to in South Africa as ‘poaching’) who did not contribute to employee training costs. In the eyes of the Wiehahn Commission ‘poaching’ was problematic because it discouraged training by individual employers (WC 2, 1980: para.3.57). This deviation by SEIFSA and its supporters from the orthodoxy which the Apprenticeship Board clearly embodied was not influenced by the Apprenticeship Act but instead by sections 48 and 48A of the Industrial Conciliation Act of 1956 which made provision for training schemes.

In fact, as the Wiehahn Commission noted, the National Apprenticeship Board was favourably disposed to the SEIFA proposal and established a subcommittee to investigate and report on the matter (WC 2, 1980: para.2.39). Ironically, this broader purview of the challenge would certainly not have been entertained by the apprenticeship committees – or at least the majority of these. An overseas study trip to the United Kingdom was arranged for the SEIFSA representative on the National Apprenticeship Board to study applicable training schemes there. Since the notion of Industrial Training Boards (ITBs) in the United Kingdom

appeared attractive for specific industrial training lobbies in South Africa, the findings from the trip was meant to inform the specific industries or groups of industries in South Africa to which these lobbies were attached about the feasibility, actual legislative requirements and institutional accommodation that was necessary for the establishment of ITBs.

Apart from promulgating new legislation which would have been a time consuming and onerous policy formulation process, the Apprenticeship Act (1944) and the Industrial Conciliation Act (1956) were probably the only existing items of legislation that could have served as a potential legislative tool to amend and generate the resources to finance implementation and delivery of training beyond apprenticeships using ITBs (WC 2, 1980: para. 2.39). While the National Apprenticeship Board investigation was still underway, a member of the Opposition in Parliament put forward a private motion in 1969 in which a draft *Manpower Training Bill* was debated in the House of Assembly. Incidentally, this Bill was modelled on the British Industrial Training Act of 1964 (Compare with Sheldrake & Vickerstaff (1987) & Hansen (1967)). The motion was however rejected by the Government. Instead the Minister of Labour sought to control the situation and took the initiative to introduce an Industrial Conciliation Amendment Bill in February 1970 to neutralise the Opposition's attempt the previous year. The Bill was adopted by Parliament. Thus, the 1970 Amendment to the Industrial Conciliation Act (1956) made provision for Industrial Councils to introduce training schemes. The amending legislation also made provision for training schemes to be established in unorganised industries which did not fall under an Industrial Council (WC 2, 1980: para.2.40)³⁵. Both types of training scheme qualified for tax concessions under the Income Tax Amendment Act of 1962 (No. 58).

Between 1970 and 1979, which was the period from which the Wiehahn Commission collected a large bulk of its evidence, eleven training schemes under the auspices of Industrial Councils were in existence. Depending on the industry, most of these were financed through fixed monetary levies on employers (e.g. 40 cents or 10 cents per worker per week). In some instances there was even a contribution from employees built into the funding mechanism but these were soon discontinued and were eventually covered wholly by employer contributions. Initially the schemes were identified with the industrial council through which they were managed but some schemes acquired the appellation of 'Training Board' even though they

³⁵ In official documentation these are referred to as training schemes in terms of sections 48 and 48A of the Industrial Conciliation Act of 1956 (Act 28).

were under the control of an Industrial Council. Training schemes that were clear extensions of a specific industrial council included the Metal and Engineering Industries Education and Training Fund Industrial Council Agreement³⁶ and the Training Schemes Fund of the National Industrial Council of the Printing and Newspaper Industry of South Africa which came into operation in January 1973. Some of the training schemes that were regulated under the Industrial Conciliation Act (1956) were referred to as Training Boards even though they were under the auspices of an Industrial Council. Examples of this are the Furniture Industry Training Board, the Civil Engineering Industry Training Board and the Clothing Industry Training Board. Factually, in South Africa, ITBs as autonomous institutions were only formally established from 1981 when they came under the regulation of the Manpower Training Act of 1981.

These nuances defining institutional forms, was sometimes unclear, even in official sources. Similarly, the distinction between Industrial Council training schemes and ITBs was often misread in secondary analysis (e.g. Bennell, 1992). But it is also true that in many instances Industrial Council training schemes did evolve, especially when the enabling legislation was promulgated, into ITBs. This occurred with different degrees of alignment taking place between the parent Industrial Council and the new ITBs which gradually asserted their autonomy and independence.

Nonetheless, even in its elementary form as an Industrial Council training scheme, each of these schemes was embedded with a strong orientation to industrial training coordination. This is evident for instance, in the prescribed nature and scope of the training scheme for the Civil Engineering Industry, which came into operation on January 1973. Coordination encompassed running specific courses at specialised training centres for management personnel, technical personnel and the general labour force. It also encompassed the design of training materials in collaboration with relevant industry bodies. This training scheme was known as the Civil Engineering Training Board. The designated functions for this specific

³⁶ This was the main SEIFSA Training Scheme but there were several secondary training schemes which were also associated with SEIFSA. These included the SEIFSA Technological Fund Industrial Agreement and the Journeyman Recognition Scheme which continues to this day as the Artisan Training Recognition Agreement of the Metal Industries (ATRAMI). At the present time (2017), while SEIFSA's ATRAMI programme still operates (see Lundall, Maree & Godfrey, 2008), MERSETA too oversees an artisan acceleration programme. The MERSETA programme has wider coverage but overlaps with the original SEIFSA ATRAMI programme. The current MERSETA programme is referred to as the Accelerated Artisan Training Programme (AATP) (see Akoojee & Brown (2009).

training board was broadly symptomatic of most of the bodies known as training boards that were established prior to the release of the second report to the Wiehahn Commission in 1980. The industrial training coordination functions of these so-called training boards was highlighted through five pillars. These were:

- ‘(i) Courses run centrally by the Training Board in each of the main centres at which specialised training courses are provided for instructors, training officers and management and supervisory personnel;
- (ii) package courses developed by the Training Board to cover all general civil engineering tasks at operation and construction hand level;
- (iii) in-company courses developed by employers to meet their own training needs;
- (iv) national courses for technicians and apprentices; external courses in first aid, safety, etc.; certain correspondence courses covering highway engineering, quantity surveying, etc.; and
- (v) training material for use at public centres established under the Black Employees In-Service Training Act, 1976. Courses in construction management have also been developed in collaboration with BIFSA³⁷ for two universities. Assistance has been rendered to technikons with a view to developing syllabuses for utilisation in the training of technicians’ (WC2, 1980, para.2.54)

Industry training boards established in other industries mimicked the process that the Civil Engineering Industry followed.

Finally, in its overview of industrial training in South Africa, WC2 arrived at a similar verdict which the Riekert Commission reached a year before. Essentially, this was about a proliferation of training programmes which made it difficult to coordinate policy formulation and planning in South Africa. As WC2 observed:

‘It is obvious from this Report and from the Riekert Report that over the years the industrial training dispensation has developed into a rather complex network of legislation administered by a multiplicity of Government departments and other bodies. The inevitable consequences are overlapping and gaps, lack of standardisation and co-ordination and dissipation of scarce resources in terms of money, manpower and time. There has been a proliferation of training programmes produced by various institutions, giving rise to problems in regard to co-ordination of policy formulation and planning.The time has obviously come for South Africa also to simplify, rationalise and consolidate its training system so far as legislation, administration and facilities are concerned’ (WC2, 1980: para. 2.53).

To address the problem of free-riders within industrial training among South African employers, the Wiehahn Commission mentioned measures from Western countries that were introduced to overcome a similar problem. It defined *free-riders* as ‘employers who do not

³⁷ Building Industries Federation of South Africa.

themselves undertake training but merely entice trained workers away from other firms' (WC2, 1980: para. 3.57). In the selected examples cited from Western countries where the free-rider problem was tackled, the Wiehahn Commission mentioned that introduction of training levies were used to over-come the problem. The Commission further suggested that a training levy calculated on training costs should be imposed on firms in South Africa.

The Wiehahn Commission recommended a radical institutional redesign which would consolidate and streamline all the coordinating structures which dealt with technical vocational and educational programmes at the enterprise or firm-level in South Africa. The suggestion was that these ought to be consolidated into one body which would be known as the National Training Board. The Wiehahn Commission formulated its recommendations which would lead to the formation of the National Training Board as follows:

‘the scope of responsibility and designation of the National Apprenticeship Board be broadened to enable the Board to serve as a National Training Board; that the Co-ordinating Council for In-Service Training of Black Employers and the Council for In-Service Training be incorporated into the National Training Board and that membership of the National Apprenticeship Board and apprenticeship committees be enlarged to include members who are expert in training and who also have knowledge of training requirements over the whole field of employment;

The National Training Board:

- (i) take active steps to co-ordinate, encourage and facilitate all forms of training, but especially those aimed at the provision of technical skills;
- (ii) conduct continuous research into modern training technology, testing and patterns of utilisation, demand and supply of skilled workers and other related matters;
- (iii) monitor and control the effectiveness of all training to predetermined standards;
- (iv) be empowered to subpoena any person, to demand certain information and to administer the oath;
- (v) be requested to investigate the desirability and feasibility of a system of graded training and intermediate and subsequent testing of technical workers;
- (vi) be requested to investigate the possibility of establishing a central training fund;
- (vii) give attention to the question of representatives on apprenticeship committees (industrial training committees) with a view to making recommendations to the Minister of Manpower Utilisation;
- (viii) investigate the merit of stipulating a basic minimum age only in regard to both apprenticeship training and adult artisan training in the proposed consolidated Employment and Training Act, with due regard to the wage and other implications of such a stipulation' (WC, 1980: para. 3.60.6 (i)-(viii)).

In the subsequent White Paper which was issued shortly after the release of the second Wiehahn Report (WC2, 1980), the government in principle supported its recommendations to establish a National Training Board. However the state invoked its prerogative to investigate the matter further, through the Department of Manpower Utilisation and in consultation with interested bodies. These prerogatives therefore applied to the determination of the functions and administrative and organisation framework of such a body. Even the apartheid regime adhered to governance standards which were sensitive to potential inter-institutional conflicts within government departments and ministries as well as the necessity of rallying broader interest groups to strengthen its position on contentious matters. This process ensued until the passage of the Manpower Training Act of 1981 through which the National Training Board was established.

6.5 Coordination in Support of the Prevailing State Sector

Ideologically, the apartheid state – as would be the case for all states – constantly and consistently tried to mobilise forces which were structurally outside the state sector as a bulwark to advance the success of its cause. These parallel forces were located in the private market sector and the social development economy or non-profit sector. In the social development economy a disciplinary outlook oriented to relevance and practical necessity became entrenched and it fuelled large fractions of the regime's support base. In addition, strong ideological allegiance to support the state using all the necessary disciplinary knowledge to sustain intellectual production and output was cultivated over a long period.

6.5.1 Skill Coordination in the Private Market Sector as reflected through Employers

Although employers were active throughout the period – from the 1960s until the establishment of the Wiehahn Commission – in formulating ideas which could be translated into policy in respect of skilled labour shortages and the burning topic of the composition of national aggregate skills in general, it was mainly the more liberal components of the business community that were the most vocal. Some of these ideas were channelled through the National Development and Management Foundation of South Africa. Beyond the liberal segments of the business community were those that either supported the NP government or remained muted and did not gain an identifiable public presence on these matters.

6.5.2 Skill Coordination and Disciplinary Knowledge Support in the State Sector

The national apex research institutions and its network of academic researchers and research institutions, was aided by coherent disciplinary strands where industrial psychology was influential in the scientific research scene around human resource/skills development concerns³⁸. This process played itself out in the higher education system which ensured the production and reproduction of disciplinary knowledge through the production of research by staff and higher-level supervision and training. It contributed to dissertations on pertinent matters. A broad overview of locally produced publications deposited in the libraries of the University of Cape Town and Stellenbosch University provides a cursory road map into university-based research in Industrial Psychology from the mid-1960s to the late 1980s. The Afrikaans-language universities appeared to dominate the outputs of theses and research reports in the field, complimenting research which the more educationally orientated psychologists were doing at the National Council for Social Research (NCSR) and subsequently at the HSRC.

Until roughly 1985, the majority of theses in Industrial Psychology in the library deposits of these two universities were awarded either at Stellenbosch University or the University of South Africa. Between 1975 and 1983 the production and dissemination of a journal, *Perspectives in Industrial Psychology* was hosted and controlled by the Industrial Psychology Department of Stellenbosch University. From 1984 the journal was hosted by the Rand Afrikaans University (RAU), changing its name to *Journal of Industrial Psychology* in 1986³⁹. While the disciplinary axes to Industrial Psychology within the higher educational system in South Africa appears to have a noticeable presence at Stellenbosch University, the University of South Africa and subsequently RAU, a shift in the quantity and quality of output in the Industrial Psychology from the early 1970s became pronounced at the University of the Free State. Tracing the date and number of publications generated, the name H.P. Langenhoven appears to have had an influence within the Department of Industrial Psychology and its Research Division within this university. In 1964 a research

³⁸ The NIPR was the apex national institution which addressed research concerns in Industrial Psychology. Its orientation and ambit of concern however was primarily the needs of the private market economy. Although Education Psychology as a discipline was entrenched at the NCSR, the organisation itself pursued research in Industrial Psychology which had wider national interests especially in respect of serving the state. As was stated earlier, the NIPR was oriented to the needs of the private market economy whereas the NCSR supported the research needs of the state sector.

³⁹ Since 2001 it is known as the *South African Journal of Industrial Psychology*.

report which he authored was published by the NCSR in Pretoria (Langenhoven, 1964). The first sign of post-graduate dissertation research to emerge from this Department at the UOFS was the award of a Masters and a PhD degree in 1971 respectively completed through the Department. The Stellenbosch University library holdings indicated that in 1976, four doctorates were awarded to candidates registered for Industrial Psychology at the Free State University. Two of these went to candidates (Ryno Verster and Willem Wehlburg van Breda) who also subsequently authored research reports disseminated under the auspices of the Personnel Research Division in the Department of Industrial Psychology at the University of the Orange Free State, which was the university's official name at the time.

6.6 Institutional Coordination after Wiehahn: National Manpower Commission (NMC), National Training Board (NTB) and the Human Sciences Research Council (HSRC)

From the period of the establishment of the National Training Board in 1981 until the announcement of the abolition of apartheid in February 1990 by President F.W. De Klerk and the beginning of constitutional negotiations thereafter, the institutions which had been established to coordinate the institutional landscape for industrial and vocational training in South Africa methodically proceeded to execute the tasks which had been assigned to it by the apartheid government. A triumvirate of institutions which worked in coordination to shape strategy, undertake research and coordinate the vocational education and training realm in South Africa proceeded to reconfigure the apartheid skills development system in the country. These triumvirate institutions consisted of the National Training Board established hastily in 1979, the Human Science Research Council which acquired even greater status or notoriety with proposals to reform the entire South African educational system after the Soweto upheaval, and the National Manpower Commission. The HSRC was from 1981 involved in a gigantic educational commission of enquiry that was chaired by Professor Pieter De Lange rector of the Rand Afrikaans University. All three institutions which often worked in unison had a healthy predilection to address its most pressing problems through systematic research enquiries and investigations that mirrored the format of the traditional commission of enquiry. Over a period of no more than a decade, a substantial number of investigations were completed.

The larger and more complex investigations on different facets of vocational training and skills development were often completed as joint inter-institutional collaborations. While the reports were completed through the collaboration of a collective of experts and key informants, each of these were generated internally either single-handed or in collaboration using expert staff within its employ. In the absence of such expertise, competent personnel who usually chaired these proceedings were seconded typically from academic and research institutions elsewhere in the country (e.g. Pittendrigh and De Lange). A lot of attention was devoted to the development of a levy system for the promotion and financing of industrial training. These reports also covered ancillary matters related to the overall skills development system as it was being imagined and incrementally constructed. A sample of the reports completed covering themes related to the overall system and the skills levy in particular were the following:

- *Report of the National Manpower Commission on Training in Labour Relations in South Africa and a Levy System for the Promotion and Financing of Industrial Training* (National Manpower Commission, 1982)
- *Implementation of a Cash Grant System Instead of Tax Concessions* (Department of Manpower & National Training Board, August 1986)
- *Devolution of Training: Establishment of Additional Private Sector Industry Training Boards* (Department of Manpower & National Training Board, August 1986)
- *Guidelines for the Establishment, Management, Financing and Function of an Industry Training Board (within a system of cash grants and accreditation)* (National Training Board & Department of Labour, First Draft, December 1986)
- *Guidelines for the Accreditation of Training* (Department of Manpower & National Training Board, 1986)
- *High-level and middle-level manpower in South Africa: Recent Developments* (Department of Manpower & National Manpower Commission, 1987)
- *Guidelines for the Introduction of Modular Training for Apprentices* (Department of Manpower & National Training Board, 1987)
- *Guidelines for the Restructuring of In-Service Training Programmes for Student Technicians* (Department of Manpower & National Training Board, 1989)
- *Guidelines for Apprenticeship Agreements* (Department of Manpower & National Training Board, July 1989)
- *Guidelines for the Implementation of competence-based modular training: a manual for trainers* (Department of Manpower & National Training Board, 1989)

In addition to the above, under the chairmanship of Alan Pittendrigh the Human Science Research Council and the National Training Board also completed reports from two substantial commissions of enquiry on the Training of Artisans (HSRC/NTB, 1984) and Skills Training in the RSA (HSRC/NTB, 1989) in 1984 and 1989 respectively.

The Commission of Inquiry into Skills Training in the RSA gave an outline of the functions of the National Training Board as well as the objects and functions of what it referred to as Accredited Training Boards (ATBs). ATBs were just a different expression for ITBs. At the time of the Commission, the revisions to the anticipated amended Manpower Training Act were still in a draft form and the draft changes were still tentative. However, structured interviews had at the time of the Commission already been conducted ‘with representatives of training schemes/boards and major national concerns’⁴⁰ (HSRC/NTB, 1989: 242). The inclusion of the feedback from the interviews in the Commission report suggest that the proposals generated from these were extremely significant and likely to be adopted in some form by the Commission and also likely to be accepted in principle by the government. It also signified the probable policy direction to which the Commission was veering. There is definitely merit in reproducing the verbatim findings of the interviews which the Commission replicated in its report.

On the issue of skills training, the interviews which the Commission conducted suggested the following:

1. ‘Skills Training: Most training boards make provision for training their people in a wide variety of skills at all levels of manpower and in combination of human, conceptual, intellectual and manipulative skills. This training is designed by taking the industries’ needs into consideration and concentrating on universal skills. Needs that cannot be met are most often contracted out, often to group training centres. Training is most often stimulated by newsletters and seminars on the introduction of new courses’ (HSRC/NTB, 1989: para. 9.8, F9.1)
2. ‘Existing Training Structures: The majority of respondents believe that proposed legislation concerning manpower training should be extended to include all skills training. This legislation should not, however, be prescriptive but rather allow for flexibility and adaptation. The training board was the most favoured instrument proposed to achieve

⁴⁰ By national concerns was meant the concerns of large private and state-owned enterprises.

this. However, some organisations felt it would be unnecessary to create new infrastructures where adequate facilities already existed' (HSRC/NTB, 1989: para. 9.8, F9.2).

3. 'The basis of financing a training board should be a levy on the employers in the industry but it is not desirable that such a levy should exceed 1% of the employer's payroll. The overseas experience shows that once the employer's payment into a training fund exceeds 1% it causes resentment and default which is harmful to the training fund' (HSRC/NTB, 1989: para. 9.8, F9.5).

On the basis of its conception of the trajectory to the evolving skills development system as well as the findings which it gleaned from the interview process, the Commission proceeded to advance a range of proposals. These were considered to be strategic and necessary. First, the Commission proposed that 'there should be devolution of control of all manpower training, to accredited training boards' (HSRC/NTB, 1989: para. 9.9, P9.1). It also proposed that ITBs should 'assume the responsibility of all skills training within their particular industry' (HSRC/NTB, 1989, para. 9.9, P9.2). Thus, accredited training boards would not be exclusively confined to concerns with artisan training.

The Commission also proposed that the system of tax concessions for training from government should be phased out and be replaced by a system of cash grants to accredited training boards. This was consistent with the policy suggestions which had emanated earlier from the National Manpower Commission shortly after WC2 was released. This policy was subsequently strengthened through research and discussion proposed by the National Training Board. Thus the Commission's proposal in 1989 was that:

'The cash grant from the state must be ongoing and be based on a formula that ensures the training of skills of primary importance to the nation. This grant should furthermore be based on actual training produced rather than size of industry, size of proposed budget or any other factor' (HSRC/NTB, 1989, para. 9.9, P9.10).

An increased role and function which the NTB should play in shaping national strategy for human resource development in South Africa also featured in the Commission's proposals:

'It is proposed that the National Training Board should give consideration to the formulation of a national strategy for human resource development in the RSA. This strategy should also determine priority areas which should be updated on a regular basis making use of information from bodies such as the proposed association of training boards' (HSRC/NTB, 1989, para. 9.9, P9.14)

A prominent place was also assigned to Technical Colleges in the proposals of the Commission and it was suggested that it should be open to all employees (in 1989 this meant open to all races) whom industry wants trained:

‘The technical college should play a much greater role in training to meet the needs of industry in the RSA, possibly also in the retraining of adult learners, owing to the vast need for skilled workers, changing needs of industry as well as the equitable use of resources, attempts should be made to bridge the barriers between training and the formal education system. The technical colleges should be available to all the employees whom industry wants trained within the region of such technical colleges’ (HSRC/NTB, 1989, para. 9.9,

The Commission also recognised the importance of the manpower and industrial training board matters being consolidated under a single state department:

‘All manpower and training board matters should fall under a single state department. It is proposed that the training board for local government should be administered, with all other training schemes by the Department of Manpower’ (HSRC/NTB, 1989: para. 9.9, P9.20).

Finally, just as the progressive training practitioners in South Africa had cast their eyes to the antipodes to draw innovative lessons of education and training practice, the Commission too was not immune to similar tendencies. Predictably the Commission emphasised the coordination lesson that the effort possibly could generate:

‘Further research should be undertaken on the co-ordination of efforts between formal education and training. The successful Australian example of a single department, linking education and training, including, all their resources, could be considered in such research’ (HSRC/NTB, 1989: para. 9.9, P9.21).

All of the above was written and recommended in 1989. The impact of the Commission’s recommendations was however submitted in a period that would be characterised by immense political and social change in South Africa. Within less than a year the previously banned liberation movements would be unbanned and South Africa’s long-term political prisoners including the iconic Nelson Mandela would be released from detention. The terrain started to shift rapidly and the managerial and intellectual leadership embedded in national coordinating and training institutions that managed and governed the skills formation system under the apartheid regime such as the National Training Board were not effectively versed in navigating the stormy waters that lay ahead. Moreover, these institutions faced strenuous

tests of legitimacy in the technical vocational education and training reform as new centres of power gained prominence.

6.7 Skill Coordination under a Regime in Waiting

The ideological and political alternatives to the apartheid system of skill coordination occurred consciously and unconsciously long before it was even possible to witness the broad unfolding of events during the last years of the apartheid regime. While it may have been vague and general in orientation, it was enshrined in the imagination of political opposition to apartheid as embodied in nationalist anti-apartheid movements and blurred even perhaps as nationalist anti-capitalist movements. Here the activities of the Unity Movement, the African National Congress, the Pan-Africanist Congress, the Black Consciousness Movement and various left groupings exhibited a noticeable collective voice. Each of these organisational formations was capable too of articulating different perspectives of the ideal skills dispensation under a democratic post-apartheid regime. The evidence suggests that it is the Durban strikes and the work of intellectuals like Rick Turner who anchored this vision in a more credible framework (Webster, 1993). It enabled successive generations of intellectuals to think about and imagine the process of coordinating the education, training and skills development dispensation of a new non-racial democratic South Africa. The sections below trace the influences and forces which enriched this process.

6.7.1 Impact of the Durban Strikes and the Student Uprisings on the Coordination of Skill Development Initiatives

While research production exploring aspects of skills development coordination were being authored and produced within research programmes that were largely aligned to the apartheid state, radical alternative types of research with similar objectives had begun to gain a different purpose after the cataclysmic Durban strikes of 1973. These strikes gave momentum for more organised and systematic interventions to workers education and technical training and support (e.g. labour law, collective bargaining, the calculation of inflation on the preservation of real wages and nominal wage dispersion, conditions of employment etc.). A large spectrum of non-profit sector organisations was established to address this need (See the Bridge Directories for 1984 and 1987 published by the Human Awareness Programme (1984; 1987)).

The Institute of Industrial Education (IIE) in Durban and the Urban Training Project (UTP) in Johannesburg were among the first organisational entities which started to play this role in support of an independent black trade union movement. When the IIE was launched by Rick Turner along with colleagues from the University of Natal in May 1974, its scope, in the words of Webster ‘included a correspondence course for black workers, a research institute (Charles Simkins was the first employee) and the South African Labour Bulletin’ (Webster, 1993: 5). According to Eddie Webster, who was a key informant and participant in the IIE’s early activities, the Institute was torn between two poles:

‘... either to be a resource to build the shop floor leadership of the new unions, or to be an adult education centre with the aim of educating workers in general in union and community leadership. Both tendencies were represented in the IIE and it vacillated between the two until, towards the end of 1975, the union position came out on top and the IIE was brought directly into the educational work of unions’ (Webster, 1993: 5-6).

In an article written for the *South African Labour Bulletin*, and on the basis of access to primary material, Johann Maree captured the contentions between the two tendencies by assigning names and personalities of the preferred approach to worker education which each advocated. As he observed:

‘The political and ideological differences between the two sides was shown clearly at a Council meeting in July 1974 when professor [Lawrence –PL] Schlemmer proposed that the IIE should introduce a Diploma in Community Studies. He motivated the proposal on the grounds that there was a need to train leaders in Black communities, that a workers’ organisation needed to have a leadership with knowledge of community problems and an awareness of the organisation’s relationship to the community. [Johnny – PL] Copelyn opposed the proposal on the grounds that it was not related to the needs of the trade unions and that priority should be given to establishing trade union structures in the factories. He felt that the IIE should be a trade union school training shop stewards and should not distance itself from the factory’ (Maree, 1984: 82-83).

Apparently the IIE could initially not resolve the matter and vacillated on making a decision until the end of 1975 when the Trade Union Advisory Coordinating Council (TUACC) which controlled the IIE wrenched control away from Turner and his partner Foszia Fisher. Unfortunately the TUACC unionists were not able to balance the organisational demands required to train workers to build trade union organisation and still devote sufficient time to worker education. The IIE and the initiative into worker education subsequently collapsed. Maree notes that only after a number of years when the unions were well established and

confident could general worker education commence once again (Maree, 1984: 90; also see Copelyn, 2016: 17).

At roughly the same period when Rick Turner and his colleagues in the east of the country were strategizing, in the western part of the country, a restructuring within the Department of Economics at the University of Cape Town took place. It was restructured into a School of Economics with three Divisions: a Division of Economics, a Division of Economic History and a Division of Research. Francis Wilson, the son of arguably South Africa's most renowned social anthropologist, Monica Wilson (nee Hunter) was appointed head of the division of research. Wilson bore the mantle as an impeccable development and labour market scholar and anti-apartheid liberal activist (see chapter 5 to his 1972 study of the South African Gold Mining Industry). Once funding had been secured, Wilson established the Southern African Labour and Development Research Unit (SALDRU) as the first unit within the research division (SALDRU, 2005). SALDRU's aim was to research and advance the challenges faced by labour and development in South Africa.

In 1976, a second cataclysmic set of events unfolded with the Soweto student uprising which reverberated to many corners of the country, including schools in Cape Town which experienced massive educational turmoil, student mobilisation, politicalisation and radicalisation. The events of 1973 and 1976 were merely the opening salvos in the mobilisation of workers and students in South Africa. Whereas, the mobilisation of workers led to the formation of an independent trade union movement in South Africa, continuing student mobilisation and struggle against the apartheid regime led to a perennial and deepening educational crisis in the country. Many politically engaged intellectuals and academics made a commitment to support the worker trade union organisations by taking up technical, educational and organisational roles in these bodies⁴¹. Others rendered assistance by creating technical, educational and support institutions to the union movement both inside and outside of the universities (see Human Awareness Programme (1984; 1987) for the relevant organisations listed). As the effects of ongoing struggles in the education system became manifest, the educational provision to large cohorts of learners throughout the schooling system was severely disrupted. Many left school prematurely. These learners became known as the lost generation.

⁴¹ At the insistence of a university student colleague, I too was dragged to participate as a Saturday volunteer in the Western Province Workers Advice Office in 1981.

Educationalists with similar perspectives to those who rendered support to the independent trade union movement followed a similar trajectory. Many started organisations and NGOs to help ameliorate and improve the educational outcomes and progression of those that were affected by the ongoing crisis and struggles in the educational system. One of these which came to be known as the South African Committee for Higher Education (SACHED), was established earlier in 1959. It was established as a response to the Extension of University Education Act excluding black students from white universities and the creation of tribal universities for different black ethnic groups. SACHED initially promoted the support for black students studying for university degrees initially through the University of London and later through the University of South Africa (UNISA). From the mid-1970s its activities spread to the support of secondary school learners, adults and subsequently workers education (see Nonyongo, 1998). Thus, the NGO sector was instrumental in responding to conditions of crisis that the apartheid regime created. These conditions led to the adult education movement in South Africa gaining prominence and influence. Hence the structural events that gave momentum to the coalescence of policy inclined activists and intellectuals, has to be located in the events of 1973, 1976 and in the reforms of the Wiehahn dispensation. These intellectuals and activists would again rise to prominence with the shift towards democracy from 1990s onwards, through policy formulation in the skills development arena. These reforms gave rise to the construction of mass-based organisations with the capacity and ability to engage in a more robust manner with state institutions and institutions in the private market economy. It established within the non-profit or social development sector a network of supporting institutions which could match those of the state and the private market economy, particularly in respect of policy thinking to advance the human resource/skills development outcomes of the vast majority of the population in South Africa.

The SALDRU experience⁴² of developing research expertise along a wide spectrum of developmental concerns had the potential to gain a presence in the educational and skills development arenas. However it did not achieve this. Roughly until 1979, SALDRU's research outputs reflected a wide diversity of topics covering migration, unemployment, farm labour, the economics of health, the mining industry as well as surveys of squatter and other

⁴² Because I was probably the longest serving intern at SALDRU starting from June 1983 to December 1993 with a seventeen month break between 1986 and 1987, I have taken the licence to reflect on the unit particularly through the literature on skills development which passed through its library and which I read avidly from the beginning of 1990.

communities. With the publication of the first Wiehahn Commission report in 1979, a more systematic endeavour was made to coordinate its labour market research. This was done by producing a series of directories and compendia on wages and statistics. An effort was also made at mapping the imprint of active trade unions in South Africa. The production of these publications required an efficient coordination of research teams supervised by senior staff members within SALDRU. To effectively undertake the data extraction and data processing for these enlarged directories and compendia, a large cohort of student interns were employed and trained to work with a high level of accuracy. Thus, under the guidance of Dudley Horner, Gordon Young, Debbie Budlender and Delia Hendrie, by 1984 in a series aptly referred to as the *Labour Statistics Series*, the first statistical compendiums on Industrial Council Wage Rates (Budlender, Young & Hendrie, 1984), Wage Determination Wage Rates (Pillay, Budlender & Young, 1985), Conditions of Employment set by Industrial Councils and the Wage Board (Schroeder & Young, 1985) as well as a comprehensive Directory of Trade Unions (Lundall, Schroeder & Young, 1984) was produced over an intense period spanning roughly three years.

The research of the Labour Research programme at SALDRU remained extremely relevant in the latter period of the apartheid regime because it was a more credible and legitimate source of social statistics compared to what the state potentially could generate. When the winds of change were unleashed in February 1990 with F.W. de Klerk's opening speech in Parliament announcing the release from prison of Nelson Mandela, the unbanning of liberation political organisations and the process to commence dialogue towards a political settlement in South Africa, the labour intensive research work contained in the information directories and statistical compendia which SALDRU had been producing, no longer had the same urgency.

The urgency had shifted towards supporting a government in waiting with policy proposals for an entirely new system of government. These policy proposals applied to the broad education and training development arena as well. Even though there was an attempt by some researchers at SALDRU to enter the fray by generating statistics of the growth of artisan and apprentice numbers over the recent period, this was insufficient (Mohamed & Kimmie, 1992 & Lundall & Kimmie, 1992). Researchers elsewhere in the country were better placed to enter the fray and take up the cudgels. What was learnt was that while institutional support to expand and extend research programmes in critical fields where there was a demand from society (e.g. the field of education and training or skills development), it

was specific individuals that were endowed with an entrepreneurial disposition about the immediate policy requirements of society who were better placed to respond to the rapidly changing policy environment. Foresight also enabled these individuals to reap the earlier intellectual investments which they may have incurred. As much as foresight was a factor, individuals who gravitated towards making a contribution towards constructing a new educational and training system in South Africa entered the fray from different disciplinary perspectives and with different levels of institutional commitment to support this new work. Lane and Maxfield (1996) draw parallels to this process when reflecting on the lessons of forging relationships but do so within a different context involving formal business enterprises and start-ups.

6.7.2 Skill Coordination Initiatives in the Social Development Sector at the cusp of Democracy with a Government in Waiting

Throughout the 1980s in South Africa, heightened acceleration in internal resistance to apartheid across a wide spectrum took place. This resistance took the form of community, student and worker struggles. Initiatives by the state to incorporate sectional interest (e.g. the emerging black business community) or exploit racial and ethnic cleavages within the non-white population (e.g. the tri-cameral constitutional experiment which Chris Heunis Minister of Constitutional Development and Planning in the PW Cabinet advocated) backfired. It heightened resistance against the regime. New organisational formations connected in some way to these struggles arose. These formations sought to strengthen the organisational and strategic orientation to these struggles but also gave moral expression to sectional or societal interests which these emerging forces represented. Examples of these new organisational formations which emerged during this period included the United Democratic Front (UDF), an umbrella body uniting a large spectrum of community organisations, civic bodies, student organisations, cultural groupings, trade unions and worker organisations as well as religious bodies that remained ideologically sympathetic to the ideals of the Freedom Charter and loyal to the ANC in exile. Among the examples of new organisational formations distinct from the UDF was the socialist inclined National Forum (National Forum, 1986). Other formations included bodies which consolidated trade union organisations under two different umbrella federations, namely the Congress of South African Trade Unions (COSATU) and the National Council of Trade Unions (NACTU).

These social struggles resonated deeply into the conceptual outlook of activists and intellectuals identifying with these struggles, particularly in the manner which they conceived the often fluid South African trajectory and its immediate future. In critiquing the perspective of policies and programmes around education and training which the existing state and its apparatus fervently advanced, those that were ideologically in opposition and in resistance to the current state policies were drawn to slowly construct an alternative vision and platform for new policies and programmes in the education and training field. As the expression ‘the early bird catches the worm’ implies, those who were previously investigating and researching the crisis of education and training in South Africa, were better positioned to contribute to a progressive or radical alternative. This was especially true for those who presciently judged that the wheel of change would eventually turn. This wheel did suggest that a future education, training and skills development system, while having not yet emerged was not far off from being born anew⁴³ (Saul & Gelb, 1981).

Those best placed to meet this challenge were either academics or research students working in the more liberal English universities (UCT, Wits, UND) or the progressive historically black universities (e.g. UWC, UDW, North, UniBo) on the one side. Or as organisational practitioners providing support services including education and training that were designed as creative responses to the crisis of human resources development in South Africa. Organisational practitioners were drawn from diverse fields and educational arenas located in universities, community organisations and trade unions. These organisations gradually built competence and specialisation which addressed concerns about adult education and the incorporation of youth into the labour market. They did so through customised support services which drew attention, among others, to the concerns of school leavers and drop-outs from the schooling system and unemployed individuals in need of career guidance and counselling (e.g. the Careers Resource and Information Centre (CRIC) in Athlone, Cape Town). Trade unions too began to enter the fray, the most prominent being NUMSA, which formulated policies to address issues of job grading, outcomes from job-training initiatives at the workplace as well as devising measures to overcome stunted career paths which many workers had experienced (Forrest, 2011; McGrath, 1996). Similarly, the Adult Education

⁴³ In order to capture the mood of the period, the allusion to the crisis of the apartheid system and the impending birth of a new system is borrowed from John Saul & Stephen Gelb (1981) *The Crisis in South Africa: class defence, class revolution* (Monthly Review Press). Although banned from possession in South Africa it was widely and deftly circulated among university students in photocopy. More importantly, for some of us, it stimulated a renewed interest in reading Gramsci's *Prison Notebooks*.

Movement also rose in prominence with centres of influence located simultaneously in community organisations as well as through academic departments within universities and colleges of education. Perhaps the symbolic epicentre of the adult education movement in South Africa was the Centre for Adult and Continuing Education (CACE) at the University of the Western Cape with Shirley Walters as its director and key policy lobbyist (see Walters, 1989 and the conference articles in Walters, 1997). The Certificate and Diploma courses offered by CACE was a significant success because this offering coincided with a strong application of the Recognition of Prior Learning (RPL) which enabled many individuals with incomplete school leaving qualifications to gain access to university undergraduate programmes. Thus RPL as an access option also enable many to study for post-graduate qualifications through CACE at the University of the Western Cape.

Thus, just below the radar, a plethora of initiatives exhibiting multiple features of human resource development were already established, often in response to specific crises in the educational and training field in South Africa. Many of these interventions embodied support services which were provided to marginalised communities and people. It is out of this amalgam of coalescing forces and struggles that a critical number of perceptive studies documenting the crisis of human resource development in South Africa emerged (Matiwana & Walters, 1986). Organisations which had a strong orientation towards lobbying and critique such as the South African Institute of Race Relations also filled a void by providing critical insights through an alternative literature to that produced by the state and its institutions (e.g. Bot, 1988).

Perhaps the research in the education, training and skills development arena of Andre Kraak epitomises most vividly the intricate mix between foresight and opportunity which elevated him as the front runner and key analyst in the movement towards an alternative to the apartheid education and training discourse. Kraak completed a highly original masters' thesis in 1988 while lecturing in the Department of Comparative Education at the University of the Western Cape on capital's initiatives in the black education and industrial training arenas since 1976 (Kraak, 1988). Shortly afterwards he undertook a doctoral study on the education and training policy options of a future South Africa which he completed in 1994 (Kraak, 1994). Thus Kraak immersed himself thoroughly in understanding the policy shifts spanning the apartheid and post-apartheid periods which is the subject matter that the current chapter of this thesis also covers. Essentially therefore Kraak's work provides critical insights into the

policy background that informed institutional coordination in the post-Wiehahn period both as a commentator and as an active participant in the proceedings for an alternative view to Wiehahn.

From the mid-1990s, as his research developed a direct linkage to support the policies and implementation imperatives of a new government that ruled the country, the challenge of coordination in the overall skills development system in South Africa permeated into Kraak's work. Thus, like Edward Batson and Nicolas Everhardus Wiehahn before him, Kraak can be classified as a South African 'coordination' theorist, who has transmitted a framework of coordination into his research of the South African skills development system. This is demonstrated most poignantly in Kraak's introductory chapter to a book which he edited in 2009 entitled *Sectors and Skills: the Need for Policy Alignment*.

6.7.3 Insights from the Commonwealth Expert Group

On the basis of interviews conducted and discussions by members of the Commonwealth Expert Group (CEG) with prominent actors on the ground during a fact finding visit to South Africa in 1990, John Harker and the team from the Commonwealth Expert Group provide a perspicacious overview of the contending groups which were mainly but not exclusively based in the social development sector. These groups were well placed to influence and shape the evolving education and training policy in South Africa (Harker, et.al, 1991). At the forefront of the process was the National Educational Coordinating Committee (NECC) which was responsible for launching the National Educational Policy Investigation (NEPI). The NECC, previously known as the National Education Crisis Committee was renamed the National Education Coordinating Committee in 1990 (Harker et.al., 1991: 24). NEPI was tasked with the research of policy options for the entire education and training system in South Africa but it also had to dislodge and displace the influence on society at large of the Educational Renewal Strategy which the NP government launched in 1990. The Report of the Commonwealth Expert Group noted that close cooperation existed between the Education Policy Units at Wits and Durban. Similar units existed at UWC (REPPESA), Pietermaritzburg (Macro-Economic Development Unit (MEDU)) as well as in London (Research on Education in South Africa (RESA) based at the Institute of Education at London University). In the early 1990s, RESA relocated to Cape Town and was located at UWC where it merged with REPPESA to form the Education Policy Unit at the University of

the Western Cape. The Education Policy Unit at UWC was under the directorship of Harold Wolpe, the former Rivonia trialist, escapee from probable long-term imprisonment in a South African jail-cell and exiled South African intellectual.

The Commonwealth Expert Group also sketched the parameters of non-formal organisations and the training programmes in which they were active. A survey was conducted to map these non-formal organisations which were associated with a wide diversity of training activities. Some organisations operated independently while others such as the Centre for Adult and Continuing Education (CACE) were attached to universities. Many of the organisations that the Commonwealth Expert Group classified as non-formal organisations developed to assist young people and adults who had fallen out of the schooling system. Ideologically many of these could be classified as forming part of the Adult Education Movement which generally was a post-1976 phenomenon.

Finally, the Commonwealth Expert Group also identified a trend in which trade unions such as NUMSA were able to intervene in national discussions concerning training policy because of the experience and the results achieved through collective bargaining at gaining concessions around education and training of its members. As the Commonwealth Expert Group expressed the matter:

‘NUMSA has recently reached agreement with employers in the car assembly sector in respect of South Africa’s first industrial training board with equal union and employer representation and employer funding. The purpose will be to consolidate and broaden existing flat-based training according to national standards and link it to industry needs and restructuring; training will be modular and competency-based and offer opportunities for all workers ‘from sweeper to engineer’. Included in the board’s scope will be adult basic education and literacy as well as dealing with race and gender discrimination and educational disadvantage’ (Harker et.al, 1991: 85, Box 5.7)

Thus the overview which Harker and his team mapped confirms and complements the outline that I have sketched from my own observations and experiences of the period of political transition in South Africa.

6.7.4 NEPI and Proposals on the Skills Levy

The unbanning of liberation movement organisations, coincided with the release from imprisonment of Nelson Mandela and the beginning of constitutional negotiations. It brought

into existence the policy formulation moment in progressive discourse in South Africa. The policy formulation moment corresponded with ideas about the institutional design of the new democratic state in South Africa and lasted roughly a decade from 1990 to 1999⁴⁴.

The National Education Coordinating Committee (NECC) which enjoyed strong links with the ANC in exile played a pivotal role in kick-starting research and policy proposals for a new dispensation in the educational and training arena in South Africa. The drive for research and policy was initiated through a NECC initiative known as the National Education Policy Investigation (NEPI) which was conducted between December 1990 and August 1992.

NEPI consisted of twelve research groups that investigated various components of the South African educational and training system across a spectrum ranging from early childhood development to higher education. One of these research groups covered human resource development and was convened by the British academic Nicola Swainson⁴⁵. It consisted of fifteen participants. Twenty three papers by members of the group as well as additional participants were delivered at a NEPI *Conference on Human Resources Policy for a New South Africa* held over four days in Durban from the 7th to the 10th of May 1992. The conference was followed by a consolidated report of the findings of the human resources development research group published subsequently during 1992 (NEPI, 1992). A conference paper respectively by Paul Bennell, Adrienne Bird as well as three papers by Andre Kraak broached in particular, policy recommendations, which covered the subject of levy payment systems in South Africa. These three individuals were at the cutting edge of the assault against the apartheid industrial training dispensation.

Kraak's (1991) monograph report for the Wits EPU set the scene for the conception of the reform and coordination of the skills and training development system which the participants of the NEPI human resources development group confronted between 1990 and 1992. In this report Kraak (1991) emphasised the urgent need for fundamental restructuring of the existing educational and labour market institutions in South Africa to take effect. As he expressed the point:

⁴⁴ I remember quite vividly seminar discussions and corridor and lunch time discussions afterwards that ensued at the EPU at UWC at which I was engaged as a researcher during the 1990s, where Dave Cooper, the Cape Town educational sociologist spent a lot of time arguing among other things about the merits of periodising the 'policy formulation moment' that we confronted.

⁴⁵ Swainson and her partner, Paul Bennell along with Michael Young from the Institute of Education at the University of London participated actively in the NEPI human resources development research group.

‘Many of the existing institutions are weak and ineffectual coordinating or advisory bodies. They need to be transformed into powerful tripartite bargaining forums’ (Kraak, 1991: 59).

Consequently, Kraak concluded that:

‘Reconstruction in South Africa must be comprehensive. This is because of the complex network of labour market, education and economic institutional forces which together powerfully determine the character of VET and economic performance. Successful restructuring in each of these institutional spheres requires that they be restructured together’ (Kraak, 1991: 75).

Thus the proposal which Kraak advanced was about national comprehensive restructuring. This drew the following concluding remarks from Kraak:

‘The proposal made here is that the current South African state Departments of Economic Coordination, Trade and Industry, Manpower, and the proposed unified Education & Training Department sit together on an Inter-Ministry Planning Commission which would be responsible for all long term comprehensive planning in the spheres of education, employment and economic growth. This proposal is modelled on the success of the French Commissariat du Plan. The Planning Commission would constitute a higher authority structure than the individual ministries, and its recommendations would be binding on all affiliated Departments. The Planning Commission would also incorporate within its deliberations the recommendations of the tripartite LMC [Labour Market Council], NTB and ERC [Economic Restructuring Council]’ (Kraak, 1991: 75).

Kraak argued that the proposals which were advanced in this monograph ‘would provide South Africa with a sound institutional framework capable of coordinating a coherent and comprehensive plan for economic growth, secure employment and high quality education and training’ (Kraak, 1991: 75-76). Paul Bennell was more categorical about the urgency of restructuring the existing state institutions that were mandated to spearhead human resource development. At the time that he was writing, the transition to democracy in South Africa was inexorably but also painfully underway:

‘It is generally acknowledged that the National Training Board is a “dead duck” which has proved to be quite incapable of formulating the kind of innovative and visionary training strategies and policies needed to create a highly skilled work force throughout South Africa. The NTB should therefore be scrapped’ (Bennell, 1992: 19).

The alternative Bennell argued was that:

‘The new state should establish in its place a broadly constituted, high profile National Council for Human Resources Development (or some similar body) with the necessary technical backstopping to develop comprehensive training strategies and policies. This support role could perhaps be provided by a National (or even Southern African) Research Institute for Vocational Education and Training (RIVET). A detailed assessment of existing and potential skill requirements in all sectors of the economy must underpin the planning process’ (Bennell, 1992: 19).

Bennell did not add significant insight into the levy grant system to what had already been formulated and tested by the National Training Board over at least the preceding seven years. He did however call for caution when implementing levy grant schemes:

‘For a variety of reasons, training levy and grant schemes must be very carefully implemented if they are to be effective. While an across-the-board levy for all industries appears attractive, it is clear that training requirements vary markedly from among industry to industry (especially during periods of restructuring) and the capacities of enterprises to pay levies is far from uniform’ (Bennell, 1992: 19).

Armed mainly with evidence from telephonic interviews with ITB managers, Bennell was absolutely certain that:

‘For ITBs to play a pivotal role in industrial training and, in particular, for them to control relatively sizeable training grant funds, the training levy should be at least one per cent of the total payroll of all enterprises and probably higher still for larger enterprises, i.e. those with over 500 employees’

Adrienne Bird’s NEPI paper was more concerned about presenting a COSATU perspective to redefinitions of human resources development. However, while not providing a clear perspective on the institutional landscape for human resources development in South Africa particularly in respect of existing institutions such as the National Manpower Commission, the NTB and ITBs, she held comprehensive insights into the challenge of coordination which had to be confronted within the education, training and skills systems in South Africa. Drawing on Kraak’s work, Bird argued that the existing institutions were marred by the lack of coordination and the lack of power to challenge the state. Bird’s argument contained a number of propositions which I have tried to capture by quoting from her NEPI paper in more detail. She argued:

‘The administrative functions of the state are highly disaggregated. Coordination at the level of policy formulation has tended to be driven through the cabinet where ministers co-ordinate under the strong leadership of a powerful state president. Even the white community has enjoyed relatively little real representative democracy and no participatory democracy. The black community has had none of either.

‘A semblance of democracy has been introduced since 1981. Ministers of different departments have increasingly been advised by statutory advisory bodies such as the NMC and the NTB. However these bodies have no power at all – the Minister concerned is free to completely ignore the advice and table recommendations of his own to parliament. The difficulties of COSATU’s battles to democratise these institutions should not be underestimated.

‘Central to the struggle to democratise the statutory advisory bodies is the need for co-ordination between these bodies. Whilst the cabinet is the only forum for policy integration, civil society has limited institutional possibilities to bring about meaningful pressure on the state. COSATU has argued that these labour market institutions should have the right to table recommendations directly to parliament (preferably a democratically elected one) in order for the political representatives to make the final determination – not an individual minister.

‘Strengthened alliances will also be needed to break down the segmentation of the South African labour market as a prerequisite to an equitable, democratic and ultimately socialist society. Civics, rural organisations and women’s organisations need to become involved in the restructuring of labour market institutions’ (Bird, 1992: 6-7).

The systemic orientation to Bird’s arguments is embedded throughout her paper. A broader spectrum of interest-based organisations was deemed as a necessary bulwark to ensure democratic restructuring of existing labour market institutions. To her own question about what a co-ordinated human resources policy is, Bird advanced the following response:

- ‘Formal education, adult basic education and vocational skill formation programmes must be brought together under a single co-ordinating structure – both in terms of state structures and in terms of negotiating forums of civil society. This is not to deny the relative autonomy of these different areas which must be given institutional expression within the broader co-ordinating structures.
- ‘Education (both formal and ABE) and training must be coherently linked through a national certification system which ensures national recognition and portability for knowledge and skills acquired.
- ‘The human resources development provision must anticipate and contribute to economic growth and employment creation and security.
- ‘Recognise the relative autonomy of different sectors’. (Bird, 1992: 19)

There tended to be a strong thrust for consolidation and centralisation in many of the proposals that were advanced in the democratic movement during this period. Thus, the proposals from the human resources development group in NEPI were infused with a lot of similar thinking and argument. Seemingly, this was a product of the milieu. Reflecting on it years later as a senior civil servant in government, Ihron Rensburg (2001) who was a central participant in the NEPI process, albeit not the human resources development group, acknowledge this strong tendency within ‘an anti-apartheid and national liberation movement

whose culture was one of democratic centralism, with an emphasis on centralism rather than localised voluntarism' (Rensburg, 2001: 126).

6.8 Conclusion

This chapter has traced the multiple forms of coordination in enterprise skill formation that ensued in South Africa over roughly a thirty year period, starting in the early 1960s and extending into the 1990s. One has to treat with caution assertions to the effect that this period in the history of vocational education and training in South Africa was entirely uncoordinated. Indeed the system may have been characterised by weak forms of coordination at the enterprise level, which on first sight may have appeared to be highly voluntarist. Indeed while the process of coordinating enterprise skill formation at the level of the enterprise was indeed weak, the institutions of the state attempted to fill this void with the design of new state institutions. Furthermore, attempts at coordinating specific dimensions of the skill formation process mainly within the private market economy contributed to strategic thinking about this challenge from administrators, bureaucrats and researchers attached to the state and its wider apparatus. It was manifest particularly through the research and policy arms of its apex research institutions (e.g. NCSR, NIPR & HSRC).

But even within the private market economy, attempts were made to modify existing state policies and shift the institutional configuration and design that addressed the coordination to the formation of skills at an enterprise level. There is certainly evidence of collective attempts made by employers to modify the racial composition of the division of labour which certainly can be construed as an initiative at coordinating labour inputs and production outputs. But except for evidence of applications for exemption to job grading, the process was highly diffused. Consequently the evidence to this process did not leave behind the testimony of witnesses. Instead, it was a proposal from sectional interests among employers that led to the adoption of the UK ITB model in South Africa in the late 1960s. To prevent the business leaning parliamentary opposition gaining mileage in imitating this UK ITB training model, the NP government hijacked the process. Instead it promoted it as its own model in South Africa. Although this was an initial start to the establishment of institutions that were crucial to the coordination of enterprise skill formation (i.e. future South African industrial training boards), the British ITB model only started becoming established on a

solid footing and under substantially different legislation after the Riekert and Wiehahn Commissions presented its findings in the late 1970s and early 1980s.

Both Riekert and Wiehahn are crucial to understanding the phenomenon of enterprise coordination in South Africa. Although Riekert's report was completed while the Wiehahn Commission was still mid-way in its work, Riekert suggested that the future industrial training of black South African workers could be financed through levies imposed on firms. However it was the Wiehahn Commission which elevated the importance of coordination within the South African state to a higher level. Wiehahn put emphasis on the broad policy contours which make coordination in a modern state successful, particularly in addressing strategic issues, such as, the utilisation of labour supplies. For the process of coordination of labour supplies to be successful it was important to give it attention at the highest levels. Wiehahn also emphasised the importance of using the correct institutions to promote and accelerate the upgrading of labour supplies in an economy. In this respect I have suggested that as well as being a proponent of policy coordination, Wiehahn was also an advocate of institutional coordination. Thus he did not refrain from supporting the formation of new institutions that were more efficient and capable at advancing enterprise skill formation. The National Training Board and the National Manpower Commission, as well as Industrial Training Boards, were established on the basis of the recommendations of the Wiehahn Commission. A significant amount of attention was later devoted by the National Training Board to investigate and promote the introduction of levy based financing mechanisms on firms and enterprises for the purpose of industrial training in South Africa.

Finally this chapter shows that despite the control and rule that was exercised by the apartheid state on the black majority population in South Africa, there was also a concerted attempt from those aligned to oppositional and democratic forces to formulate alternative ideas about the coordination of enterprise related skills. This process gained momentum after the unbanning of oppositional political parties opposed to the apartheid government. It gained further momentum with the release from detention of Nelson Mandela in February 1990. The shifting political climate led to a plethora of initiatives from a new cohort of policy analysts who started investigating alternative policies for a new government in waiting. This process started taking shape as the constitutional negotiations gained momentum resulting in a successful political settlement. It contributed to new policy formulation capacities in the individuals themselves and in the new government for whom

they could potentially be hired. This policy formulation capacity in the field of enterprise skills development and human resource development ensured that a capacity to shape the policy trajectory of enterprise skill formation in South Africa was no longer dormant. NEPI which convened between 1990 and 1991 was the first significant expression of this new capability and as will be shown in chapter 7, there were significant continuities between NEPI and the initiatives which built on this work after 1994.

Chapter 7: Case Study of the Effect of the Skills Development Levy on the Coordination of Firm-Level Training: late 1990s to 2013

7.1 Introduction

This chapter reviews recent studies and evidence about the incidence and experience that firms had with the skills development levy in South Africa. The discussion of the skills development levy is meant to provide insights into a form of statutory and regulatory coordination. Here the state carries out legal and regulatory coordination. Firms are compelled to respond either directly and indirectly to the compliance conditions which the legal and regulatory coordination requires. The behaviour of firms which is signalled through often contradictory data gives one a window into how firms actually relate to such statutory and regulatory coordination. Behind the façade of compliance to the legal and regulatory coordination which the data represents, is it possible for firms to surreptitiously engage in training and skills development practices about which we are unaware?

There are a whole lot of preconceptions about the behaviour of firms and markets which administrators and bureaucrats that favoured adopting legal and regulatory coordination mechanisms have preferred. As part of an historical introduction into the influence that the skills development levy as a coordinating instrument has had on firm-level training, these preconceptions about the behaviour of firms and markets will first be explored in greater detail. This is especially applicable to vocational skills and training policy. It also relates to the perception and experiences that firms had of the skills development levy which we can infer from different sources of data. These data sources are mainly from two national skills surveys of firms undertaken by the HSRC in 2003 and 2007. I have also used data from an unpublished pilot survey to test the probability that firms are inclined to engage in training activities which fall outside the purview of levy contributing scrutiny. It gives firms more control and flexibility to align training more spontaneously to their operational imperatives. However, the success of doing this successfully is the incurring of further expenditure beyond the levy. I have termed this further expenditure which firms are not statutorily obliged to undertake as ‘out-of-pocket’ expenditure.

The chapter has four components. The first component covers historical background to the introduction of a national levy grant system in South Africa (or a national skills development levy), before its formal adoption in 1999. In South Africa the levy grant system is underpinned by payroll levies. The second component covers the legal application and administration of the skills development levy system in South Africa. It also includes a discussion of legislative shifts in the administration and allocation of monies accumulated under the national levy grant system. The third component discusses the incentive structure on firms as anticipated in government policy. This extends from the Green Paper in 1997 to the Report of the Ministerial Task Team on SETAs. Incentives are a double-edged sword and can simultaneously also serve as a disincentive. The fourth component of the chapter explores evidence of the incidence of firm-level training as well as evidence of the out-of-pocket expenditure on training from firms under the current national skills development system.

Since this is the third chapter in which the evidence of the thesis is being elaborated (ie. Chapters 5 to 7), it is perhaps timely to reiterate, apart from the empirical content, a conceptual thrust which pervades this thesis. In particular, it has to do with the Thelen thesis of continuity or discontinuity between the different phases of the skill formation system in South Africa. This includes the segregationist, apartheid and post-apartheid training dispensations. It has to do with either continuity or discontinuity with the system which was established from the beginning or at least in the first decades of the twentieth century.

Thus, even if characterised by quite an active process to advance the supply of enterprise skill formation, the late 1950s still exhibited strong features of a liberal training dispensation, with a strong voluntarist current. These foundations were set into motion in the period before and after the promulgation of the 1922 Apprenticeship Act. Similarly, from the period of rigorous formalised Verwoerdian apartheid until the emergence of a reformist apartheid labour market, despite a plethora of new institutional configurations, there was continuity in the liberal training dispensation (see Kraak, 2004a). It corresponds with the Thelen thesis of continuity. However, in the post-apartheid period, fervent and definite attempts were made to reverse the features of a liberal market training dispensation by actively constructing a coordinated and integrated training system. Under the new system, the vestiges of voluntarist employer training practices were and are, it is claimed, being gradually eroded although

Kraak (2004c) cautioned that this was not inevitable. It would seem then, that the systematic experience to build a training dispensation that was underpinned by a more active and expansive role for state supporting skill formation institutions, contradicts the Thelen thesis of continuity. After examining the evidence, if this argument is correct, an argument for discontinuity will have been made.

7.2 The Adoption of a National Levy Grant System in South Africa

A national levy grant system in South Africa came into operation for the first time after the promulgation of the Skills Development Levies Act in 1999. Starting in 2000, in the first year of its application, under the National Skills Development Strategy (NSDS 1), it mandated all formal sector businesses with an annual payroll above R250 000 per annum to contribute half-a-percent (0.5%) of annual payroll costs towards a skills levy. The ratio of the national skills levy was increased to 1% of payroll in 2001 for the second year of the collection process. At the end of NSDS 1, the minimum payroll threshold of firms for payment of skills levies was increased from R250 000 to R500 000 per annum.

Investigation into the options for the structure, finance and organisation of a national levy grant system in South Africa started roughly in the mid-1990s. Its architecture and design was embodied in the 1997 *Green Paper* on a Skills Development Strategy. Except for Paul Bennell (1992) almost nothing about the resources that would be required and the level of financing needed to support a vocational education and training system was made in papers and submissions during the NEPI process. Even the earlier financing of firm-level training which shifted away from tax concessions to a cash grant system had not yet reached the phase of it becoming a national system. Whatever changes had been anticipated seemed almost irrelevant in terms of the impending shifts and changes in vocational training policy which would become an object of attention for the unity government in which the ANC was the dominant party. These policy insights and proposals to a national levy grant system in the NTB/NEDLAC study were drafted in 1994/1995 and fed into the 1997 *Green Paper* on Skills Development. The thrust of these vocational training and skills policies and proposals are examined in the next section of this chapter.

7.2.1 The NTB/NEDLAC Study

To address the conceptual and practical lacunae of a national levy grant system, the National Training Board (NTB) in conjunction with the National Economic Development and Labour Council (NEDLAC) initiated research between 1994 and 1997 into mechanisms of financing training in South Africa. A broad spectrum of research expertise was commissioned to carry out the research. Coopers and Lybrand, an accounting and consultancy firm conducted the research into industry training. The findings of one of these reports entitled: *Industry Training – Supply and Competition*, are examined in more detail because it provided much of the empirical evidence on the extensiveness and precise rate to be set for a national skills levy. It substantiated the proposals made and conclusions drawn in the Green Paper on Skills Development which subsequently followed.

The findings of the Coopers and Lybrand report was released under the authorship of the National Training Board and NEDLAC just over a year after it was commissioned (NTB & NEDLAC, 1997a & 1997b) although it is likely that the authors of the Green Paper had access to this and other reports as soon as these were released. The report on *Industry Training – Supply and Competition* (NTB & NEDLAC, 1997b) undertook an extensive survey of currently existing Industrial Training Boards. It also surveyed 19 employers spread across large, medium and small sized firms to help understand expenditure on training in firms.

The NTB/NEDLAC Funding Mechanism research into the supply and competition of training placed the absence of a statutory mechanism in South Africa as a crucial stumbling block from allowing government to directly raise funds for training (NTB & NEDLAC, 1997b, para. 1.13). Through the Manpower Training Act (MTA) of 1981, the Minister of Labour could however enforce a training levy on employers but this could only operate on a sector basis and under the auspices of a specific training board. Under the MTA, accredited Industry Training Boards (ITBs) had statutory powers to collect levies from employers (NTB & NEDLAC, 1997b, para. 1.14). It meant that employers could choose between two options to fund training: either indirectly through the ITBs or directly through ‘out of pocket’ expenditure’ which they could use to devise their own training initiatives.

At the time that the NTB/NEDLAC Funding Mechanism research was being conducted in 1994/1995, 27 ITBs had become accredited and several others were in the process of achieving accreditation. Slightly more than half (55%) of ITBs had been operating for more than five years or to reiterate the same point, 45% had been in operation for under five years. The NTB/NEDLAC noted that there was significant participation or 'domination' of employers on ITBs. In contrast there was an absence of employee representation especially by trade unions (NTB & NEDLAC, 1997b, para. 2.6). This domination of ITBs by employers was by 1997 however changing. In many instances, the ratio of employee representation on boards of ITBs was on par at 50:50 with that of employers (NTB & NEDLAC, 1997b, para. 2.6).

Seventeen ITB respondents indicated that their funding was based on a levy system. A further two ITBs intended introducing a levy system in the near future. All the ITBs had developed their own levy formulas which were roughly based on three calculations. These included:

- The total cost of remuneration;
- The number of employees engaged within the enterprise;
- A fixed monetary amount levied on each enterprise within an ITB sector (NTB & NEDLAC, 1997b, para. 2.23).

Different ITBs also gave the Coopers & Lybrand team their own views on alternative funding systems that would address inefficiencies and inadequacies of the system then currently in use (NTB & NEDLAC, 1997b, para. 2.28).

Taking into account that only nineteen employers responded with evidence of enterprise costs incurred for training, quite a lot of suggestive but also categorical pronouncements about the actual levels of costs for training incurred by enterprises of different sizes was made. As the Funding Mechanism report indicated: 'On average training costs for large, medium and small sized employers amounts to 3%, 3% and 1% of total costs respectively. The highest is 9% and the lowest 0%. One-third of small employers did not undertake any training during 1994 (NTB & NEDLAC, 1997b, para. 5.13). The study acknowledges that the real costs of training were likely to be even higher because the majority of companies did not keep information of the costs from the loss of production plus the cost of wages and salaries which

still had to be paid while employees were away from work on training (NTB & NEDLAC, 1997b, para. 5.16).

The importance of a national coordinating body in countries with national schemes designed to fund enterprise training was consistently articulated in the NTB/NEDLAC Funding Mechanism research. Whether these were payroll levy schemes or tax incentive schemes, ‘a national co-ordinating body’ (NTB & NEDLAC, 1997b, para. 7.25) was a precondition for the operation of such schemes. Typically, for such a body to exist, it was necessary according to the policy suggestions in the Funding Mechanism research, for it to be subjected to tri-partite control by government, employers and trade unions. It was suggested that the co-ordinating body would also be composed of regional structures. Expanding further on this suggestion and taking the formulation into the future, the research team from Coopers and Lybrand perceived the core task of such a national coordinating body as follows:

‘This body is normally subject to tri-partite control by government, employers and trade unions, and will have regional structures. This body will control the collection and disbursement of funds. In some countries the collection and disbursement of funds may be controlled by separate bodies – particularly where there is a tax incentive scheme in place, in which case the tax authority is often the collection body’ (NTB & NEDLAC, 1997b, para. 7.25)

The NTB/NEDLAC study presented four possible options which new funding mechanisms for training could take in South Africa. A summary of the four options given by the research team was as follows:

‘Option 1: Retain the system as it is with voluntary ITBs, levies set at industry level and no central co-ordinating body;
Option 2: Retain an industry based system with compulsory establishment of ITBs, compulsory industry based levies and the possibility of a national co-ordinating body;
Option 3: Introduce a national levy scheme and a national co-ordinating body to collect and disburse the funds;
Option 4: Introduce a national tax incentive scheme and a national collection agency’ (NTB & NEDLAC, 1997b, para. 7.50).

Subsequently, as was to be reflected in the Skills Development legislation introduced in 1998 and 1999, Option 3 was incorporated into South African national skills policy. Option 3 represented a definitive shift from sectoral as well as industry-based levies, which had become associated with ITBs, towards a national training levy. The rationale for this as constantly reiterated in the NTB/NEDLAC Funding Mechanism research was ‘to establish a strong national capacity to direct and co-ordinate the training system, and to provide a

mechanism for targeting funding in accordance with agreed priorities’ (NTB & NEDLAC, 1997b, para. 7.57).

Indeed, the state occupied a central place in the discussion of a strong national capacity for the coordination of the overall training system. Ultimately:

‘A national training levy could take the form of a levy grant system where levies are disbursed back to employers in the form of grants for agreed training activities. A levy exemption scheme could be considered, where employers are exempted from paying a levy if they conduct training in accordance with agreed standards. More innovative funding methods could also be considered under this option, including levies on products or services, or on an increase in VAT’ (NTB & NEDLAC, 1997b, para. 5.58).

National coordination as proposed in Option 3 enabled national standards being met. It allowed the targeting of funds for training and strengthened national strategy. It advanced equity or ‘equitability’ which was the term used in the Funding Mechanism research and contributed to greater but also more stable financing. Among the disadvantages that were recognised in choosing Option 3 was the loss of flexibility which a sector based system presented under the prevailing arrangement of ITBs. It was also anticipated that some stakeholders would resist the policy proposed in Option 3. The insinuation was that such resistance would come from employers because ‘the concept of a national levy... removes decision making further away from the workplace’ (NTB & NEDLAC, 1997b, para. 7.60).

The evidence marshalled above clearly shows the evolution of vocational training policy in South Africa particularly with respect to the formulation of policy for a national levy grant system that would be anchored by payroll levies. The period in which these policy formulations occurred was under the regime of a government of national unity led by President Nelson Mandela. The period was marked with the high hopes of building a more democratic and equal society.

While the NTB/NEDLAC Funding Mechanism Research process was designed to understand the options which could be pursued in a coordinated vocational training system which was adequately funded, this research was also designed to shape and inform impending vocational and training policy in South Africa. This applied especially to policy which would be succeeded by the eventual promulgation of legislation on skills development. Perhaps the most crucial policy pronouncement which preceded such legislation was the Green Paper on

a Skills Development Strategy which was released by the Minister of Labour, Tito Mboweni in March 1997. The question that remains in our minds is what continuities and disjuncture were there between the NTB/NEDLAC Funding Mechanism research and the Green Paper on Skills Development. Moreover what precise prescriptions for a national levy system to coordinate and finance vocational training and skills development in South Africa was made in the Green Paper on a skills development strategy.

7.2.2 The Green Paper on a Skills Development Strategy

The Green Paper on a *Skills Development Strategy for Economic and Employment Growth in South Africa* was released by the Department of Labour in March 1997. An earlier version appeared in 1996 as a *Human Resources and Training Strategy for South Africa*. However, the team that was engaged in drafting it was required to make significant revisions. In his forward to the subsequent Green Paper, the Minister of Labour at the time noted:

‘When the Draft Green Paper was presented to us, we agreed with the principles and substance of the proposals but were nonetheless concerned about the complexity of some of the institutional and financial arrangements suggested. The Green Paper simplifies the original proposals. There has also been substantial work on an implementation plan for the strategy which was a necessary pre-condition for the publication of this document’ (Tito Mboweni in Foreword to Green Paper, Department of Labour, 1997).

The Green Paper started on an optimistic note by informing readers that the Department of Labour believed that a new Skills Development Strategy which was being proposed will ‘achieve the restructuring and upgrading of [the] education and training system to produce the skills...people need to succeed in the 21st century’ (DoL, 1997: 8). It was further argued that conceptually, the strategy which the Green Paper advocated was ‘based on a demand-led skills development system which is flexible and responsive to the economic and social needs of the country at the same time as it promotes development of new skills demands’ (DoL, 1997: 13). In the understanding of the Green Paper, demand-led training referred ‘to the need for skills formation to be linked to the requirements of work’. It had ‘to be of sufficient quality and relevance to support increases in productivity in the workplace’ (DoL, 1997: 13). A specific set of measures was required to ensure that the process was a success. These included encouraging the increased ‘incidence of in-company education and training and the growing competitive provider market, as well as providing labour market information which signals industrial and occupational growth areas in the economy, to the marketplace’ (DoL,

1997: 13-14) A basic and stable infrastructure was however needed to support a competitive training market and provide for technically more advanced capabilities using substantial plant, equipment and technology (DoL, 1997: 15) For this to occur:

‘Large investments in plant, training equipment, curriculum development and the training of trainers are needed. These require a stable environment and funding beyond the immediate learning requirements of individual firms. Furthermore, medium-term planning is required to meet the higher level of skills demands of the economy which take time to develop. All these factors suggest that while training systems are becoming more responsive to industry’s immediate skills needs, it is important to maintain and develop “supply-side” capacity through institutions which enjoy a reasonable level of stable funding’ (DoL, 1997: 15).

The Green Paper made a stern commitment to the collection, analysis and dissemination of labour market information in relation to vocational training and skills development. It advocated using strategically positioned institutions within the national skills development arena (firms, sector intermediaries, education and training provider institutions, the National Skills Authority, the National Skills Fund, the South African Qualifications Authority) to manage and oversee the process. A unique manifestation of the skills generated from the skills development system would be embodied in learnerships which would bridge formal work experience with theoretically infused learning. Learnerships would give preparation in technical or specialist skills as well as business skills (DoL, 1997: 35). The learnership ultimately was a recognised qualification. The various parts of the skills development system which fuses cooperation between workplaces, educational and training providers, learners themselves coupled with the strategic developmental needs of the country as a whole, would be supported by a process of sectoral intermediaries and national coordination. Running virtually parallel to the process which contributed to the formulation of the Green Paper on Skills Development was a much more complicated and contentious process of the certification and accreditation of learning outcomes on the NQF which gave substance to learnership qualifications (Lugg, 2007: 207). These debates informed the framing of learnerships as articulated through the Green Paper.

This is the crux of my interest in the Green Paper: essentially the question of coordination of institutional participation and delivery through defined outcomes in the national skills development system. The manner in which the entire process is financed is also important. As will be shown, the financing of the skills development system in South Africa is through a national levy grant system. There are clear policy continuities between the NTB/NEDLAC

Study and the Green Paper, particularly in respect of the choice of a national levy-grant system which is depicted as preferable.

Apart from proposing the replacement of Industrial Training Boards (ITBs) with a new body that would be responsible for sectoral intermediation and coordination between firms, learners, education and training providers and aligning the activities of these socially defined collective categories with the requirements of the sector, room was provided for a system of national coordination. It was thought that this would give the process strategic direction. Thus the Green Paper averred:

‘The achievement of the objectives of this strategy requires that current arrangements at the national level be restructured. The current National Training Board (NTB), established under the Manpower Training Act (No. 56 of 1981, amended 1990), has research and advisory powers only. It has insufficient status and authority to exercise the functions required to significantly improve the status, profile and effectiveness of skills development in the country. It is therefore proposed that the NTB be restructured to form a National Skills Authority (NSA). This Authority will have much stronger advisory powers than the old National Training Board, giving industry, community representatives and other government departments a much stronger voice and influence over skills development in the country. In particular, these constituencies will play a critical role in ensuring that education and training is relevant to industry and development needs, that it is of high quality and that its impact on social and economic growth improves meaningfully. The proposal for establishing the NSA is accompanied by new functions of the Department of Labour, to support the implementation of the new strategy, all under the authority of the Minister of Labour’ (DoL, 1997: 60).

The approach which the Green Paper recommended with respect to funding was ‘guided by the need to mobilise adequate resources for education and training and to establish institutional capacity and incentives which support high quality, relevant and cost-effective education and training’ (DoL, 1997: 64). It was envisaged that a funding partnership that involved employers, workers, individual students and society at large was ‘necessary and appropriate to realise the objectives of the new strategy’ (DoL, 1997: 64).

The Green Paper contained a number of proposals which were eventually mirrored in the legislation on a national levy grant system in South Africa. These will be briefly considered here.

A premise to the logic for the funding of skills development in industry which the Green Paper held was that it was ‘appropriate for the private sector to bear its fair share of the costs

of training’ (DoL, 1997: 67). It was therefore imperative for the private sector to support education and training that was directly linked to enterprises and industries. At the same time, the provision of grants ‘act as incentives for enterprises to train’ particularly in areas of strategic skills needs. To buttress the position that it favoured in relation to levy grant schemes the Green Paper declared:

‘It is proposed that grants be funded by a private sector levy on payroll supported by a clearly defined fiscal contribution. A levy/grant scheme is an efficient mechanism to the extent that those that pay the levy are able to benefit directly by claiming the grant to compensate them for costs incurred while training in defined areas. Where levy grant schemes are managed at sectoral level, investment in industry-wide prioritised skills requirements can also be levered with grants’ (DoL, 1997: 67).

Throughout the analysis provided by the Green Paper, firms and industries were treated as passive actors. The real actors given priority was primarily government and secondarily, training providers. Essentially the Green Paper held the view that government leverage through a levy grant scheme would result in predictable behaviour from firms. In their quest to access the grant, firms would be confronted with ‘conditions that they are required to meet’ (DoL, 1997: 67) and would succumb to leverage. Essentially, leverage as conceived under this perspective works on the premise that if you take money away from firms and then subsequently present them with an opportunity to retrieve some of the money which was taken away, like greedy capitalists they will dart at what is offered so that they can get the money. The conception works on the premise that capitalist firms are by nature avaricious. As Cutler, Hindess, Hirst and Hussain (1977 & 1978) argued such considerations are plagued by essentialist arguments. Consequently the method of leverage that was proposed in the Green Paper was perceived to have wider application:

‘It can also be used to expand structured entry level education and training – which is proposed. The levy/grant scheme also provides the means to establish or transform the infrastructure required to support improvements in enterprise training and to establish linkages between individual learners, training providers and industry. The scheme also supports a growing and competitive provider market due to increasing enterprise demand for a diverse range of training requirements’ (DoL, 1997: 67).

Because firms will pay and contribute to the levy grant scheme, the authors of the Green Paper believed that whatever they choose to do, their actions will have a positive impact on the skills development process. With the leverage imposed on firms by the levy, firms who had not previously undertaken enterprise training will subsequently do so in order to recoup their levy contributions. Firms that are not moved to recoup their levy contributions are

essentially leaving monies behind which the industry can deploy for skills development purposes. The incentive for firms was perceived in the proportion of the levy contributions that could be recouped for training undertaken. The Green Paper advanced its argument with assurance and certainty:

‘Such a scheme will not obstruct behaviour on the part of firms. Those firms that are training at competitive levels will continue to do so with the added requirement that they must access their levy contributions through the grant mechanism. Companies that are not training, or are training at very low levels, will be induced to raise their skills development levels in order to recoup their levy contributions. Should they decide not to do so, however, they will be contributing to a general rise in the skill profile of their industry, thereby ensuring a fair distribution of education and training costs and benefits within the industry’ (DoL, 1997: 67-68).

On the basis of the above arguments, the Green Paper proposed that a national payroll levy to fund industry based training in South Africa should be established. The proposal was for a 80%:20% split in the total levy revenue that would be collected. The larger proportion of 80% would be allocated to sector based training and would tentatively form part of Sectoral Development Funds that would be managed by Sector Education Training Organisations (SETOs) (the designation eventually adopted was Sector Education and Training Authorities or abbreviated as SETAs). The balance of 20% of total levy revenue would be assigned to a National Skills Fund which the Green Paper suggested would be used to ‘fund training targeted at priority skill needs within industry, which are identified by government and the National Skills Authority’ (DoL, 1997: 68).

The Sectoral Development Funds, which the SETAs would manage were in turn to be disaggregated into two forms of training: enterprise training and learnership training. The Green Paper described the two forms of training as follows: Enterprise training was ‘where companies will be able to access training grants to reimburse part or all of the costs of their training, subject to certain conditions set by the Minister of Labour on the advice of the National Skills Authority’ (DoL, 1997: 69). Learnership training was that ‘which the SETOs will develop and manage themselves, again subject to certain conditions’ (DoL, 1997: 69).

Conditions or criteria were set at different junctures for the allocation of funding from the national revenue collection agency (South African Revenue Services) to the Sector Education and Training Authorities. These in turn would impose conditions and criteria on firms. Let us observe some of this thinking which the Green Paper adumbrates and which we must

remember was incorporated with only minor modifications as will be shown subsequently in the legislation that supported the new skills development strategy. In respect of SETAs, conditions and criteria were set for the submission of annual training plans:

‘In order to access their funds, SETOs must first develop broad annual training plans reflecting industry skills priorities in their sector. This serves to ensure that SETOs are abreast of these priorities and are therefore capable of making effective allocative decisions when disbursing funds and that they are in a position to support training within their sector’ (DoL, 1997: 69).

The Green Paper even had the boldness to specify the process which had to be followed in practice between the SETAs (or SETOs) and the Department of Labour and the Minister of Labour. This is how it was spelt out in the Green Paper:

‘Process: Training plans should be submitted to the Department of Labour which will process the plans, and submit a consolidated report with recommendations to the National Skills Authority. The National Skills Authority will consider the report from the Department and make recommendations regarding the approval of SETO plans to the Minister. Once the Minister has approved the plans, SETOs can access their portion of sectoral levy revenue. The process will follow strict time guidelines’ (DoL, 1997: 69-70).

A further set of criteria was set to govern the disbursement of funds from SETAs:

‘SETOs must allocate levy funds according to criteria set by the Minister of Labour on the advice of the National Skills Authority’.

‘It is proposed that SETO disbursement of levy funds be through a number of training schemes which are approved by the Minister of Labour, on the advice of the National Skills Authority. Each scheme will set out certain criteria that must be met in order for funds to be accessed. The Minister should have the power to alter these schemes to meet changing conditions’ (DoL, 1997: 70).

In addition to the conditions and criteria described above, the Green Paper also proposed various training schemes which were partially incorporated into the legislation as well as the first instalment of the National Skills Development Strategy of 2001 to 2005 (NSDS 1). These schemes encompassed the following: the enterprise training scheme, the small enterprise training support scheme, the enterprise training plan support scheme and the learnership scheme. With the exception of the enterprise training plan support scheme which was specified as a condition for firms to receive a first tranche of mandatory grant benefits for firms that successfully completed and submitted a Workplace Skills Plan (WSP) at a specified date during each training year, the remaining training schemes were partially

incorporated as one of the five strategic objectives under the NSDS 1. Strategic objectives that related directly to internal enterprise training tended to be financed through the mandatory grant allocation. Strategic objectives that were more inclined to national objectives (e.g. learnership targets or small enterprise training support), were more likely to be financed by discretionary fund allocations. I will discuss the structure of the levy in more detail, further below. These schemes gradually evolved into the strategic objectives of NSDS 1.

Finally, the Green Paper also recognised the importance which the then technical colleges held in respect of supporting the generation of the country's mid-to-high level technical skills (DoL, 1997: 77). The Green Paper alluded to the difficulty which graduates 'from these institutions' often had of not being able 'to find placements in industry' (DoL, 1997: 77). The Green Paper suggested that the proposed learnership system and a revised funding mechanism for technical colleges could resolve the problem. As the Green Paper noted:

'...additional general public revenue for skills development is unlikely, and a portion of the technical college budget could legitimately constitute a part of government's contribution to funding the structured learning component of the learnership. This link between the learnership and technical colleges will, however, depend on the technical colleges improving the quality and relevance of their outcomes in relation to industry' (DoL, 1997: 77-78).

But typically whenever the Green Paper advanced what was purported to be a solution, a further set of bureaucratic loops and hurdles were set in motion and had to be navigated with new conditions and criteria which was intended to cultivate the necessary leverage that was referred to earlier:

'These linkages' [between employers and technical colleges] could be achieved by earmarking a certain percentage of the technical college budget for learnerships and requiring that the money only be released once a college has entered into a SETO-registered learnership contract with an employer and learner. This proportion of the budget could be retained within Provincial Education Departments (forcing competition between technical colleges across provinces), or placed in the proposed National Skills Fund (possibly with access opened up to other providers as well)' (DoL, 1997: 78).

With respect to the employer-technical college linkage the Green Paper placed a high premium on the importance of work experience. 'Structured practical components, in a workshop or simulated workplace, may also be included (but may not replace work experience)' (DoL, 1997: 27). A technical college is however structurally bifurcated between

the provision of theoretical training and workshop simulated training. Historically, the entire problem with the placement of graduates from a technical college to a workplace was the crucial exposure to workshop simulated training. In some industries such as the Furniture Industry, industry-based training centres attempted to retain the relationship between learning and work experience for apprentices (See Gamble, 2004: 31). Where there was only theoretical instruction without workshop simulated training of a prerequisite duration, the technical college graduate battled to find a placement in formal employment. Where the opposite prevailed and theoretical instruction was followed up with the prerequisite workshop simulated training, the technical college graduates were snapped up by employers. This was not only unique to technical colleges⁴⁶. Trainees attached to Skill Centres would have had similar experiences. Similar evidence was confirmed through fieldwork which I conducted in Pretoria and Cape Town in 2002 and 2003 (Lundall, 2002; National Access Consortium Western Cape, 2003; Gamble, 2004: 33-34).

Indeed this was also shown in international experience particularly at workshops associated with Della Vos in imperial Russia (John Schenck, 1984; Bennett, 1937: 46-47; Greinert, 2005: 48-50). At the time the Green Paper was being written in 1997, proposals were being advanced for consolidation and reform of the technical college sector (DoE, 1997) The workshop simulated training programmes at technical colleges during this period was uneven: some were still of a very high quality and provided relatively useful entry level technical skills to employers; other workshop simulated training programmes had started to decline in quality (Lundall, 2002).

While the motivation for the particular distribution in money collected through a national skills levy was quite insightful, the administrative and procedural conditions and criteria for levy funds to be deployed and put to actual use second-guessed employer intentions towards enterprise training. It treated them as passive agents. It was less concerned about creating a balanced incentive for employers and more concerned to maintain leverage and through it – control.

⁴⁶ Research by third-year under-graduate students that I taught at the University of Cape Town in 2011 showed this applied even in low skilled occupations. The example cited was the Salesian Training Centre in Green Point, Cape Town which operated under the auspices of the Catholic Church and put a high emphasis on civic discipline and the importance of manual labour. It had a waiting list of employers who sought to employ trainees that had completed courses in brick-laying and cooking.

When the Green Paper was released for public comment in 1997, there was not much debate on the issues of funding. Debate focussed more on the approach to political economy which underpinned it. This issue was raised mainly by left-wing critics. There was the complaint that the Green Paper was trying to ‘balance demand-led with supply-side measures’, and it was argued instead that what was required was a skills development strategy that would ‘curb the logic of the market’ (Vally, 1997: 88). Melanie Samson (1997) at the time working in the same Wits-EPU as Vally, claimed that the Green Paper was, ‘neo-liberalising skills’. Kraak on the other hand defended the Green Paper for setting conditions for tighter coordination which were a better incentive to firms:

‘A new industry learning culture will require policy coordination across education and training, labour market, science and technology and industrial policies, with a view to creating a favourable set of incentives for companies to make the shift to a higher-skill mentality’ (Kraak, 1997: 78).

According to Kraak, for this process to take place successfully it was essential to recognise the importance of developing a stable and sustainable education and training infrastructure. As he put it:

‘The creation of a high-quality training system requires “a stable infrastructure to both support a competitive training market and to provide more technically advanced capabilities which have long lead times and require substantial investments in plant, equipment and technology” – qualities not delivered in the short term through market considerations alone. “Medium-term planning is required to meet the higher level skill demands of the economy which take time to develop ... while training systems are becoming more responsive to industry’s immediate skills needs, it is important to maintain and develop ‘supply-side’ capacity through institutions which enjoy a reasonable level of stable funding”’ (Kraak, 1997: 79-80).

Kraak’s defense increased the public’s understanding of the emerging skills development system. While difficult to understand all the conditions and criteria and the nooks and crannies which the Green Paper contained, it also legitimized the policy stance that the Green Paper took and vanquished most critics to the status of bystanders.

From the paper trail of responses to the Green Paper captured and preserved in the public electronic domain, the voices of employers and employer associations appear muted. It is possible that a more robust position was articulated within employer associations and circulated exclusively among members. This has however not been indicated through the public record. However, considering the persistence of left-wing critique against the 1997

Green Paper on Skills (e.g. Vally (1997); Kgobe (1997) & Samson (1997)), one would be given the impression that it was the most profound gift of manna to have fallen from the heavens which the ANC government was presenting to employers to institute an employer-centric skills development training system in South Africa. Such damnation from the left-wing may have disarmed the employers into believing that the new revolutionary skills dispensation which the government boasted about, was indeed manna from heaven.

The Green Paper was soon followed by legislation regulating skills development and the collection and distribution of monies derived from a national levy grant system in South Africa. The legislative and regulative requirements of the skills development system in South Africa is examined in more detail in the next section of this chapter.

7.3 The Structure and Operation of a National Levy Grant System in South Africa

A set of enabling legislation first had to be promulgated before a national levy grant system could be established in South Africa. The first component of this legislation established the institutions that were necessary for a national levy grant system to become operational. The second component related to legislation concerning the size of levy collections as a percentage, its distribution through different pools of funding (referred to in South Africa as funding windows) and the regulations that governed it.

7.3.1 Prescriptions in the Skills Development Act of 1998

The Skills Development Act of 1998 (No. 97) established the core institutions designed to promote skills development in South Africa. Apart from establishing the institutional and financial framework for skills development, the Skills Development Act of 1998 set out the powers and functions these core institutions (i.e. the National Skills Authority, the National Skills Fund, the levy scheme itself, SETAs etc.) possessed. The Skills Development Act also clearly specified transitional provisions for institutions and programmes that had been cultivated and established under the Manpower Training Act (MTA). These transitional provisions specifically referred to the National Training Board⁴⁷, the Manpower

⁴⁷ The National Training Board was to be displaced by the National Skills Authority.

Development Fund⁴⁸, the winding up and incorporation of ITBs into a designated SETA and the eventual replacement of apprenticeship programmes with learnership programmes.

The Skills Development Act of 1998 did not make provision for apprenticeship training. There was the tacit understanding that learnership training would ultimately displace apprenticeship training. Learnership training had a dual combination consisting of a structured learning component and a practical work experience component which together constituted a qualification. The learnership model was seen to be superior and more modern to the apprenticeship model. The Skills Development Act therefore made provision for learnerships. Learnerships would result in the award of a qualification.

Skills Programmes were the units that made up a learnership and could be acquired during shorter blocks of learning and training time. An appropriate combination of skills programmes could efficiently be tailored for the requisite credits to be eventually assembled into a learnership qualification.

While the Skills Development Act did not make provision for apprenticeship training, the Act contained transitional provisions for all apprenticeship contracts that were already under way, to be completed and regulated by invoking provisions of the Manpower Training Act of 1981 (amended in 1990). Thus, the specific clauses of the MTA regulating apprenticeship training, specifically training which had already been initiated through apprenticeship contracts, would continue to be regulated by the MTA. These provisions were to remain in force ‘until a date determined by the Minister [of Labour] by notice in the Gazette’ (Skills Development Act, Schedule Two, 4(5)). Immediately after this gazette date had ostensibly been made, any contract of apprenticeship registered under section 18 of the MTA, would be deemed to be a learnership agreement, registered in terms of section 17(3) of the Skills Development Act (SDA, Schedule Two 4(6b)). But the date to be determined by the Minister was never set and was therefore not published in the Government Gazette. Instead, the specific clauses of the MTA were again invoked in the Skills Development Amendment Act of 2003 ‘as if that Act [MTA] had not been repealed until a date determined by the Minister by notice in the *Gazette*’ (RSA, 2003: para.25(a)).

⁴⁸ All the assets, rights, liabilities and obligations of the Manpower Development Fund was to be transferred to the National Skills Fund.

This indecisiveness on the part of the Minister of Labour to rescind the apprenticeship requirements under the MTA however did not at first unambiguously establish the apprenticeship route to a skilled intermediate occupation as one which coexisted in parallel with a skilled occupational route through learnership training. Later, after JIPSA was established in 2006 (discussed further in section 7.33 of this chapter) and critique began being levelled at the DoL and the NSA for pursuing policies which retarded the uptake of apprenticeship contracts, the Minister of Labour and the senior public servants at the DoL responsible for the implementation of the skills development strategy eluded responsibility for this by saying that the MTA provisions regulating apprenticeship training in South Africa was never rescinded. This meant that the criticism levelled against the Minister of Labour, the DoL and the NSA was misguided. Technically on matters of fact, they were correct. Since the provisions of the MTA regulating apprenticeship training remained on the statute book, the DoL continued its regulatory oversight over these statutes. In June 2002, the then Minister of Labour, Membathisi Mdladlana issued a notice in the *Government Gazette* designating trades and prescribing conditions of apprenticeship for the Diamond and Jewel Setting and the Precious Metal Working and Mounting Trades (Department of Labour, 2002). Nonetheless on matters of policy, this response evaded responsibility for policy confusion which emanated directly from the Ministry and was conveyed by the DoL.

This policy ambiguity towards apprenticeships training was generally supported by other representatives in government and state agencies serving on the NSA. Though less grounded in the merits of the existing transitional provisions, the position that gave positive endorsement to learnership training coupled with a negative posture towards apprenticeship training was entrenched among a majority of labour and community constituency members on the NSA⁴⁹. Resistance on this matter was stronger within the business constituency on the NSA. However, members of this constituency may have gradually become muted once the debate had been lost in favour of the learnership route as a pathway for the training of the

⁴⁹ Between 2005 and 2007 when I served on the NSA as a resource person to assist the community constituency with policy capacity support on matters of skills development I observed this personally and persuaded my community constituency colleagues that the position was definitely incorrect. At the time of my association with the NSA, since the NSDS II Strategy had not yet been finalised, and until it was (April 2006), the Strategy and Indicators used under NSDS1 continued to shape discussion and deliberation on the NSA. The Community Constituency chairperson on the NSA, Mzoli Toni listened attentively to my argument and worked to facilitate a working group at the NSA to deal with the matter of formulating and presenting the Authority with arguments for the clearer articulation of apprenticeship as a training and learning route into the skilled intermediary trades and occupations.

intermediate and craft layers of the labour force⁵⁰. Soon after the promulgation of the Skills Development Act in 1998, the attention and momentum shifted to the levy grant instruments in the Skills Levies Act which was promulgated six months later at the end of April 1999.

The Skills Development Act gave impetus to the design, construction and operation of the institutions that constitute the South African Skills Development System. The principle mechanism through which the entire system is financed is through a levy-grant system that is made possible by the Skills Development Levies Act. The skills development levy is designed as a deduction to finance enterprise training. It is calculated as a proportion of the annual payroll costs of firms and business enterprises. In this thesis the levy serves as a crucial instrument to direct and increase the leverage on enterprises and firms towards more extensive and intensive involvement in the training and skills development of employees and the workforce. One can measure the degree of enterprise coordination and enterprise regulation through the implementation of the skills development levy. Before we proceed to discuss the shifts in grant levy policy, I start by first discussing the core prescriptions in the Skills Development Levies Act.

7.3.2 Prescriptions in the Skills Development Levies Act of 1999

The notion of a levy calculated on aggregate payroll costs of employers which had already been accepted under the *Green Paper on a Skills Development Strategy* (which I discussed earlier in this chapter), was put into operation through the Skills Development Levies Act, No. 9 of 1999. The Skills Development Levies Act⁵¹ set the percentage contribution to the payroll levy that would be collected from employers from the South African Revenue Services (SARS). Importantly, it also defined the distribution of aggregate monies that was to be assigned once collected during each financial and training year⁵².

By and large, adhering to the recommendations of the *Green Paper*, the distribution breakdown of the skills levy was set as the following:

⁵⁰ This is the impression that I got from my conversations with Janet Lopez who at the time was a business representative on the NSA and was associated with the Steel Engineering Employers Association of South Africa (SEIFSA). An interview conducted later by Lugg (2007: 241) with another employer representative from the NSA appears to suggest that these different positions may also have been infused with complex racial and class dynamics.

⁵¹ Typically abbreviated as SLA.

⁵² Each financial and training year ranged from 1 April of a current year to the 31st of March of the succeeding year, a period consistent with the financial year cycle of most public sector entities in South Africa.

20% was allocated to the National Skills Fund;

80% was allocated to the SETAs. Each SETA received its share in accordance with the number of levy contributors – mostly formal sector firms and enterprises – that were under its sectoral jurisdiction.

The 80% of the skills levy is distributed into two pools.

One pool amounting to 10% of the overall skills levy is dedicated to cover the administration costs of SETA activities. While in the aggregate this amounts to 10% of the overall levy, if one excludes the allocation that is made to the National Skills Fund, it is in fact equivalent to an administration cost of 12.5% (i.e. $10/80 \times 100$). It is for this reason that the DoL, periodically reiterated in regulations and notices that the administration costs of SETAs was not to exceed 12.5%.

‘A SETA may in terms of section 14(3)(b) of the Act [Skills Development Act] not use more than 12.5% of the moneys it receives in terms of the Skills Development Levies Act to pay for its administration costs’(DoL, 2001: para.3(1)).

The other pool amounting to 70% was earmarked for skills development and was spread between two types of grants: mandatory and discretionary grants. From 2000, until the end of NSDS 2, in March 2012, the percentage of the overall skills levy which was allocated to each of these grants remained constant⁵³. Thus, 50% of the overall skills levy was for mandatory grant disbursements of which contributing levy paying firms were the sole recipients. The remaining balance of 20% was earmarked for discretionary grant and project disbursements. Discretionary grants could be awarded to employers as well as ‘education and training providers and workers,’ that ‘submitted an application for a discretionary grant’(DoL, 2001, para. 6(3)(b)). Such grants could be awarded for projects, programmes and research activities that were perceived to support the implementation of the sector skills plan that each SETA had developed (DoL, 2001: Skills Development Regulations: Guidelines, para.4).

⁵³ A high court ruling in 2015 in the matter of Business Unity South Africa (BUSA) versus the NSA and the SETAs has resulted in the original 50%:20% mandatory versus discretionary allocation to the national skills development levy in South Africa being upheld. The original levy grant distribution ratios will again be in force from 1st April 2016. At the time of writing, a Labour Court judgement on the matter with potential challenges from the applicant (BUSA) and respondents on the matter (DHET, NSA and NSA) was still pending.

For the purposes of capturing the administrative and procedural requirements to the Guidelines accompanying the initial set of regulations to the Skills Development Act and the Skills Levies Act, which is what firms intending to apply for grants would confront, there is some merit in tracing and describing the process in more detail. What were employers required to do in order to access either mandatory or discretionary grants? As a start, only employers who were up-to-date with the payment of the skills levy could apply and lodge a claim for skills grants from their SETA. The 2001 Skills Development Regulations indicated that there were six grants from which employers could claim. If they were applying for mandatory grants, they could make two grant applications. If they were applying for discretionary grants, they could make four grant applications (DoL, 2001: Skills Development Regulations: Guidelines, para.5).

As was indicated earlier the mandatory grant allowed employers to claim back up to 50% of their annual contribution to the skills levy. Mandatory grant receipts to employers depended on specific deliverables. The Guidelines were meant to be just that. Later, many SETAs modified the guidelines to suit their own sectors. However in following the more generic 2001 Guidelines, one would be given a flavor of the process that employers confronted. The two mandatory grant applications from which employers could receive disbursements was first for the completion of a workplace skills plan and second for the satisfactory completion and submission of a workplace skills implementation report. Where the application of a workplace skills plan was submitted on time and correctly, the employer would receive a percentage of the total levy paid (DoL, 2001: Skills Development Regulations: Guidelines, para.7). The remainder was paid in varying proportions for a number of further submissions including on submission of the workplace skills implementation report to the designated SETA. Citing skills development regulations that were issued a year earlier in 2000⁵⁴ a SAQA discussion document listed the payment structure of mandatory grant disbursements that employers were assured. These were listed as follows:

‘15% (Grant A) on the appointment of a skills development facilitator and the submission of the name of this person;
10% (Grant B) on submission of a workplace skills plan;
20% (Grant C) on submission of a report on the implementation of the skills plan;
5% (Grant D) for the implementation of specific skills initiatives recommended by the SETA’ (SAQA, 2002: 3).

⁵⁴ The 2000 Skills Development Regulation were applicable until the 21st of June 2001 when the new regulations of 22 June 2001 came into effect.

It appears that the Skills Development Regulations issued in 2001 made provision for two additional forms to be submitted to the designated SETA by employers as part of the mandatory grant application process⁵⁵. The first of these forms [**Form for Regulation 6(1)(a)**] was a Workplace Skills Plan (WSP). It required a restatement of the list of educational and training priorities ranked by NQF levels on the further and higher education bands. It also required a numerical tabulation of the beneficiaries of skills priorities by population group and occupational category at the one digit level of the Standard Industrial Classification (SIC) system (e.g. professionals, technicians, skilled workers etc.). Under the section eliciting open-ended replies on the development and consultative processes, there were four questions. In order of sequence these were as follows:

- ‘Describe the processes used to develop the workplace skills plan.
- How does the plan relate to the organisation’s Employment Equity Plan?
- If a Skills Development Committee has been established, please outline its composition. Was the draft plan reviewed and considered by the Committee?
- If no Committee exists, please outline the steps taken to consult employees about the workplace skills plan.’(DoL, 2001: Skills Development Regulations: Annexure A, section A4).

A similar procedure was required in the second form [**Form for Regulation 6(1)(b)**] from employers that was referred to as a workplace skills report: it eventually became known as the Annual Training Report (ATR). As with the WSP, for the ATR, employers had to provide a list of education and training programmes that were provided by the enterprise, ranked by NQF levels on the further and higher education bands. A corresponding tabulation of education and training programmes provided (i.e. priorities) by population group and occupational category. This was followed by four questions similar to that shown above but with reference to the implementation of the workplace skills plan. Thereafter in both instances the form had to be authorized with witness signatures and signatures of employer/management and ‘workforce’ representatives. This is how the Workplace Skills Report (WSR later known as the ATR) was described in the Skills Development Regulation Guidelines of 2001:

‘Employers who are up-to-date with their levy payments can claim a grant from the appropriate SETA if they submit a report each year on the implementation of their workplace skills plan before the date stipulated by the SETA. The form of this report

⁵⁵ The Forms (i.e. both the WSP and the ATR) were gradually improved over the years, with the questions asked below being discarded on later versions.

is Annexure B of the Regulations, but a SETA is able to modify this to take account of sector differences. The implementation report is important to:

- Employers and workers to assess the progress that is being made
- SETAs, to review progress and problems and to assist employers, workers and the sectors as a whole to determine any additional support and advice that might be required
- Government, to inform the monitoring of progress in addressing skills development priorities and in identifying any problems that might need to be addressed' (DoL, 2001: Skills Development Regulations: Guidelines, para.20).

Submission of the WSP led to employers receiving a proportion of the mandatory grant. Only after accomplishing some of the education and training priorities on the WSP as well as completing and submitting an ATR did the employer qualify for receipts of mandatory grant disbursements from the SETA. In both the Green Paper and in subsequent policy documents that emerged from the Department of Labour it was argued that employers who do not engage in training also benefit because more money will be available for those that do training. This is how it was put in one of the documents that formed part of the Leadership Pack at the time the first NSDS was launched:

'The employers who benefit pay. All employers who pay R250 000⁵⁶ or more in monthly wages and salaries or who pay income tax must pay the levy. Employers who use a skills development facilitator and who make and implement a workplace skills plan can claim money back. This is an incentive, or reward, which encourages employers to provide training for their employees. Employers who do not organise training also benefit because there are more people with skills in the labour market. From April 2001 there will also be an incentive for employers who take part in learnerships or skills programmes'(DoL, 2001a: 36).

Employer contributions to the levy that were not claimed through mandatory disbursements would automatically be transferred to the discretionary grant fund. Since it went into a general SETA discretionary fund it could be awarded to all discretionary grant applicants. This was inferred as leverage from the state and its implementing agencies (SETAs) and an incentive on firms (employers). It was however not a perspective which firms necessarily shared.

The institutions of the skills development strategy armed with the appropriate statutes (acts and regulations) were constantly cultivating and coordinating the emergence of a successful skills development system. Leverage was seen as being applied against potentially

⁵⁶ In April 2005 this minimum salary floor requiring employers to contribute to the skills development levy was raised to R500 000 (PL).

voluntarist agents (firms) who were presented with incentives (successful disbursement of mandatory and discretionary grants) that would elicit a more active and enthusiastic response from firms. These were packaged in the form of ‘National Skills Development Strategies’ which were periodically monitored and critically evaluated at the end of each five-year cycle. The lessons learnt from failure in the institutions and the instruments led to revisions that were incorporated into the revised and renewed strategy.

7.3.3 The Shift from NSDS I to NSDS III and the status of the Skills Levy

The promulgation of legislation in 1998 (Skills Development Act or SDA) and 1999 (Skills Levies Act or SLA) initiated the groundwork towards the demarcation of industries assigned to SETAs. The process was formally completed in 1999 (DoL, 1999). Twenty-five SETAs were originally established by the end of March 2000. Some SETAs started afresh as completely new entities, while others which overlapped with the jurisdiction of ITBs also acquired the appropriate ITB/s which were dismantled and incorporated into the relevant SETA. In the latter instance the new SETA inherited some material assets, some staff personnel, records and databases and an institutional memory which was potentially beneficial in navigating uncharted territory.

The DoL in conjunction with the NSA and its stakeholders formulated a National Skills Development Strategy to cover the first five years of skills development and implementation in South Africa. Due perhaps to a delay in formulating its content and delays in getting the SETAs up and running, NSDS I was released one year after the establishment of the twenty-five SETAs. Thus NSDS I spanned the four year period from 1 April 2001 to 31 March 2005.

NSDS I contained five objectives (see Appendix 1). Although not specified as such, these objectives were all strategic objectives. Each objective in turn contained targets or success indicators designed to measure the outcome of each objective. Accompanying the objectives were twelve success indicators. Equity considerations as informed by the Employment Equity Act (55 of 1998) also permeated and cut across all the strategic objectives and success indicators. Under NSDS I these cross-cutting national equity targets were as follows:

- 85 per cent to be black

- 54 per cent to be female
- 4 per cent to be people with disabilities.

The design of the five objectives and twelve success indicators to NSDS I was quite elegant, particularly in relation to what was to follow under NSDS II. Ten of the success indicators made provision for clear quantitative measurement targets to the indicators that could be generated using external statistical sources or through surveys or tracer studies of internally assembled source material. Only two indicators, one which promised a precise target with the agreement of the SETA made use of a qualitative measurement. These two exceptions were the following:

Success Indicator (2.3): By March 2005, learnerships are available to workers in every sector (Precise targets will be agreed with each Sector Education and Training Authority) (NSDS I)

Success Indicator (4.1): By March 2003, 100 per cent of the National Skills Fund apportionment to social development is spent on viable development projects (NSDS I).

Under NSDS I, three success indicators (2.3; 5.1 & 5.2) made a direct reference to learnerships. None of the twelve success indicators mentioned ‘apprenticeships’. Typically, since all twelve indicators were outcome indicators, the measurement of the progress of these under NSDS was through an evaluation by outside agencies and contractors.

The increase in the payroll threshold for firms that were required to contribute to the skills development levy from R250 000 under NSDS I to R500 000 under NSDS II was highly significant. It benefitted small firms and it corresponded with the government rhetoric to support small firms in the country. However, as the data of the Department of Labour showed (Kraak, 2008: 6, Table 4) it led to a 79% decline in the number of firms participating in the NSDS with only a marginal impact on levy income. While there would have been a growth in the number of firms above the payroll threshold who had not previously been levy contributors that were now paying six months after the new thresholds were set, the percentage increase in levy income received by the SETAs actually increased by 9.4% (Kraak, 2008, *ibid*). One can only imagine that a 79% decrease in the submission of WSPs and other compliance documents from small firms would have freed up a huge amount of administrative capacity within almost every SETA.

NSDS II had a similar structure to NSDS I: it contained five objectives (see Appendix 2). But the content and specification of the objectives had changed. NSDS II also experienced an expansion in the number of success indicators from twelve under NSDS I to twenty. An innovation for NSDS II was the introduction of ‘levers’ which accompanied each success indicator. Each lever served as an instrument to facilitate the successful achievement of the success indicator. To illustrate, Success Indicator 2.8 was defined as follows:

‘By March 2010, at least 125 000 workers assisted to enter and at least 50% successfully complete programmes, including learnerships and apprenticeships, leading to basic entry, intermediate and high level scarce skills. Impact of assessment is measured’ (NSDS II).

The lever accompanying Success Indicator 2.8 above was referred to as Success Lever 2.8 and had the following scope:

‘SETA discretionary grants to include 18(1) grants for learnerships, bursary grants, internship grants and study support to learners acquiring basic entry, intermediate and high level scarce skills identified as scarce in their sectors (NSDS II).

18(1) grants were specifically meant for those who were already engaged in employment when awarded the grant and remained so for the duration of the grant.

Importantly, NSDS II had discarded the absolutist ‘repudiation’ of apprenticeships training which NSDS I embodied. However, although as was noted above, there was a discernible increase in the number of success indicators under NSDS II, it was associated with an even greater increase in ambiguous, vague or absent targets in eight of the twenty success indicators. Statistically this amounts to 40%. This would have been a challenge for the evaluators who ostensibly would have been contracted to evaluate the performance of NSDS II against the indicators. These were specifically for the following success indicators: 1.1; 1.2; 2.4; 2.5; 2.6; 4.2; 5.3 and 5.4 (See Appendix 2).

As an illustration, two success indicators which have a more visible bearing on the non-profit sector is given. These read as follows:

Success Indicator (2.5): ‘Annually increasing number of small BEE firms and BEE co-operatives supported by skills development. Progress measured through an annual survey of BEE firms and BEE co-operatives within the sector from the second year onwards. Impact of support measured’ (NSDS II)

And again:

Success Indicator (5.4): ‘By March 2010, there is an NSA constituency based assessment of an improvement in stakeholder capacity and commitment to the National Skills Development Strategy’ (NSDS II).

I have no knowledge whether external evaluation reports on the outcome of success indicators 2.5 and 5.4 were commissioned and produced for the DoL. Unless produced by public research agencies such as the HSRC, such reports were for internal DoL and NSA use only.

Thus, with NSDS II, twelve success indicators contained clear measurable targets that could be evaluated at the end of the strategy. But even here, the measure in the target was compromised by further conditional attributes which were not guaranteed by any measurement criteria. Again, for illustrative purposes, both of these targets are reproduced below:

Success Indicator (5.1): ‘By March 2010 each SETA recognizes and supports at least five Institutes of Sectoral or Occupational Excellence (ISOE) within public or private institutions and through Public Private Partnerships (PPPs) where appropriate, spread as widely as possible geographically for the development of people to attain identified critical occupational skills, whose excellence is measured in the number of learners successfully placed in the sector and employer satisfaction ratings of their training’ (NSDS II).

And again:

Success Indicator (5.2): ‘By March 2010, each province has at least two provider institutions accredited to manage the delivery of the new venture creation qualification. 70% of new ventures still operating after 12 months will be used as a measure of the institutions’ success’ (NSDS II).

Bearing in mind that outside the mandatory grants – the situation until the end of NSDS II and for perhaps a period until new SETA funding regulations came into play (these were subsequently issued in December 2012 for implementation from April 2013⁵⁷), all twenty success indicators would have been financed from SETA discretionary grants as well as from the National Skills Fund. In theory, taking account of the 10% SETA administration fee, the funds needed to finance these NSDS activities to meet the requirements of the success

⁵⁷ At the time of writing in 2017, a decision on this matter is still pending, subject to the outcome of legal challenges.

indicators that had been put into place would have been financed from the balance of 40% of the levies on employers (i.e. 20% discretionary fund plus 20% National Skills Fund).

In a critical review of NSDS I in South Africa, Kraak (2008a) noted that after resolutions were passed at the Growth and Development Summit (GDS) in 2003 to tackle unemployment and poverty, there was a dramatic shift ‘away from a joint focus on employed and unemployed workers towards the prioritization of the training of unemployed youth’ (Kraak, 2008: 14). This clearly dented the demand-driven imperatives of NSDS I. This trend however continued unabated under NSDS II. Of the five objectives to NSDS II, only one categorically addressed training at the workplace (Objective 2 which stated ‘Promoting and accelerating training for all in the workplace’ (NSDS II).

Broadly, in terms of the needs and responsibilities of collective groups, the eight Success Indicators included under Objective 2 focused attention on employers (3 Success Indicators), government (1 Success Indicator) and citizens and employees (3 Success Indicators). One indicator was concerned with achieving a national standard of good practice in skills development approved by the Minister of Labour (Success Indicator 2.4) had a more generalist ambit. However, what is relevant to the discussion of policy towards payment of the skills levy in South Africa are the success indicators which dealt with private enterprises and firms in general and levy paying firms in particular. Since the NSDS was a policy statement with respect to national skills policy, framed at the time through a strategy under the auspices of the DoL as the lead department in government, its orientation to different enterprise size cohorts is highly relevant. A standard approach would embody a standardized incentive orientation whereas differentiation in the approach would exhibit a differential orientation to the incentive. NSDS II adopted a differentiated approach to firms. A formalistic application of conditions was applied to large and medium-sized firms. NSDS II literally bent over backwards to accommodate small firms as well as non-levy paying emerging enterprises.

Success Indicator 2.1 was tailored for large and medium sized firms and specifically stated:

‘By March 2010 at least 80% of large firms’ and at least 60% of medium firms’ employment equity targets are supported by skills development. Impact on overall equity profile assessed’ (NSDS II).

Success Indicator 2.1 was supported by Lever 2.1. It specified the requirements that large and medium sized firms had to comply with respect to annual WSP submissions. From 2006 WSPs were to be judged against the performance of the previous year's WSP. If this step was successful, then the full 50% mandatory grant according to Lever 2.1 would be paid to the large or medium sized firm in quarterly tranches. However Lever 2.1 put a qualification on this 50% grant award by stating that: 'Firms failing to meet the set criteria will automatically forfeit the WSP grant for the given financial year. Forfeited grants will be transferred directly into SETA discretionary funds' (NSDS II). This procedure within SETA circles popularly became known as 'sweeping'.

The Success Indicator which dealt with small levy paying firms had less onerous specifications least of which was a threat of forfeiture of levy income to SETA discretionary funds. The Success Indicator for Small Firms (Success Indicator 2.2) had the following target: 'By March 2010 skills development in at least 40% of small levy paying firms supported and the impact of the support measured'. What was commendable about the indicator was a discernible level of support that would be given to small firms, albeit 40% of levy paying small firms which was the set target under the NSDS. Small firms that qualified would indeed receive a high level of support from the relevant SETA: but small levy paying firms that did not qualify would find themselves also contributing against their wishes or 'knowledge' to SETA discretionary fund accumulation. The lever linked to the indicator (Lever 2.2) specified the following criteria for small levy paying firms:

'The SETA determines the best form of intervention and grant, such as WSP grants or or the provision of free courses. 40% of total population of small firms in sector to be reached by such initiatives is the target. SETAs to spend at least 80% of the total levy income from small firms on the achievement of the indicator' (NSDS II).

Finally, the Success Indicator (2.5) which dealt with small non-levy paying firms and enterprises was quite vague. It suggested that the increasing number of BEE firms and BEE co-operatives supported by skills development would be measured through an annual survey of BEE firms and BEE co-operatives from the second year of NSDS II. Lever 2.5 contained few words merely stating 'SETA discretionary grants' (NSDS II).

The purpose of this analysis is to depict as accurately as possible the structure of the incentives which the NSDS presented to firms: large, medium, small and emerging under NSDS II.

Although the DoL and the NSA were the strategic institutions driving the implementation of the NSDS, neither of these were at the forefront of the skills implementation process. This responsibility fell onto the SETAs. Unfortunately, the strategic leadership from the DoL and NSA was also weak, marred by acrimonious debates and struggles within the NSA. Even before the NSDS had reached finality, a groundswell of disgruntlement had started to brew as a result of the slow pace of skills delivery which the SETAs had until then achieved. The South African government therefore experimented with extra-administrative interventions that would accelerate the momentum of delivery in strategic fields on which a high growth rate was dependent.

Launched in February 2006, the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) was a government growth programme designed to achieve an annual growth rate of 6%. Its interventions covered macroeconomic issues, infrastructure, education, skills, sector development strategies, challenges embedded in the ‘Second’ economy and issues related to governance and administration (also see McGrath & Akoojee, 2007). The Joint Initiative on Priority Skills Acquisition (JIPSA) was an initiative within AsgiSA to accelerate the provision of priority skills to meet AsgiSA objectives. As the 2006 JIPSA annual report expressed the matter:

‘JIPSA is thus an initiative that sets skills priorities in support of AsgiSA’s economic growth objectives. It advises on aligning training and skills development efforts of the public and private sector with the objectives of AsgiSA, without undermining the development and implementation of longer HRD strategies’ (JIPSA, 2007: 7)

JIPSA inaugurated an extensive research process that analysed the blockages and shortcomings of the key institutions of the skills development system in South Africa and particularly the SETAs. It was a research jamboree which drew in a host of other players (e.g. NEDLAC stakeholders i.e. business, labour and the state). At the time, even among leading government officials, business and labour leaders serving on the NSA – JIPSA and not the NSA – was where the action was. Many of the research reports that emerged out of this process, particularly that which was commissioned by the research consortium representing the HSRC, the Development Policy Research Unit at the University of Cape Town and the Sociology of Work Programme at the University of the Witwatersrand analysed and put forward recommendations to resolve the skills crisis and the shortcomings of skills delivery institutions in South Africa (Grawitzky, 2007 & 2008; Marock et.al., 2008). Many of these

analyses drew attention to issues of capacity, governance as well as goal and programme drift and expansion in the scope of SETAs. None really dealt in any comprehensive manner with issues of the function of the skills levy. Among its short-term recommendations however, the NEDLAC report suggested a reduction in the level of the mandatory grant (NEDLAC, 2007: 37) but it did not elaborate further.

What is presented above is merely a brief synopsis of the multiple initiatives to improve skills delivery and institutional functioning (particularly for SETAs) in South Africa. It shifted public perception about the effectiveness of the DoL and its ancillary institutions in strategically managing the vaunted skills revolution about which Minister of Labour Membathisi Mdladlana periodically boasted. The NSA and the Department of Labour were therefore confronted with providing a credible response that would avert the perception of institutional failure from it and its implementing agencies. There was also a need to address the limitations embodied in the legislation. Thus, it was under these conditions that new proposals to improve the regulatory system for skills provision in South Africa began to be discussed within the NSA. This culminated in the promulgation of amendments to the Skills Development Act in 2008 which functioned as the bridge between NSDS II and NSDS III.

The 2008 Skills Development Amendment Act introduced three significant new features to the legislative framework for skills development in South Africa. First, it gave prominence to the establishment of a Provincial Skills Development Forum (PSDF) in each province. The Act did not dictate the institutional form to the PSDF. It left scope for interpretation to such an institutional form, but as is usually the practice from convention, these are normally shaped by departmental regulations and consultations between the national department (currently DHET) and provincial authorities responsible for implementing the spirit of the Act at a provincial level.

Second, the Act attempted to reverse any inkling that the quality of artisan training in South Africa was in the doldrums. Subtly, the Act was an abrogation of an earlier perception which the Skills Development Act (SDA) of 1998 cultivated where the new learnerships were favoured over apprenticeships. Apprenticeships were seen to be less flexible. The Skills Development Amendment Act of 2008 attempted to reverse this by assembling a more strenuous moderation process that would guarantee and uphold the quality of apprenticeship training. This was to be done through the establishment of a national artisan moderation

body which was to be responsible for monitoring the performance of accredited artisan trade test centres as well as moderating the tests that would be devised to measure the competence of artisans. The Amended Act further makes provision for artisans who have qualified as artisans as well as those working as artisans to be registered with the Department of Labour. The rigid separation which the SDA of 1998 promoted, between learnerships and apprenticeships, was curtailed under the 2008 amendment to the SDA. Learnerships were now seen as a pathway and apprenticeships were recognized as an occupational designation. These distinctions were acknowledged in the secondary literature (see Kraak (2008a); Maree, Lundall & Godfrey (2009: 96-97))

Third, the Skills Development Amendment Act of 2008 made provision for the establishment of a *Quality Council for Trades and Occupations* (QCTO). What the national artisan moderation body performed in relation to the occupations that were within the artisan occupational category was applied to all occupations that upheld general performance standards deemed appropriate for the work environment. Linked to this is the regulation and approval by the South African Qualifications Authority (SAQA) in terms of the National Qualifications Framework of all qualifications that are held or presented to individuals occupying or aspiring for positions within occupations that have a presence at the workplace. Thus the amendments to the SDA was an attempt to regulate occupational standards and qualifications and the entire infrastructure of learning programmes, occupational curricular, accreditation and delivery providers, the assessment, moderation and certification of occupational standards and qualifications. The 2008 Amendment to the SDA has an ambitious intent which also makes provision for internships and the recognition of prior learning of occupational qualifications.

Following the new amendments to the SDA, the entire administration and steerage of the skills development system in South Africa underwent dramatic change, particularly after the 2009 general elections. The Department of Education was split into two resulting in general school education being assigned to the Department of Basic Education and Further Education and Higher Education being assigned to a new Department of Higher Education and Training. Towards the end of 2009 there occurred a constitutional transfer of the administration, powers and functions of the legislation supporting the national skills development strategy from the Ministry of Labour to the Ministry of Higher Education and Training. This effectively meant that the Ministry of Higher Education and Training assumed political

responsibility for directing skills development in South Africa, with the Department of Higher Education and Training assuming the responsibility of its delivery. Apart from changes in responsibility for the application of the skills legislation, in practical terms this transfer process also led to the entire branch in the Department of Labour known as the branch for Employment and Skills Development Services/Human Resources Development being transferred to the new Department of Higher Education and Training.

In April 2010, as a precursor to NSDS III, the DHET released a consultative document titled: *Framework for the National Skills Development Strategy 2011/12-2015/16*. The framework document introduced a number of new ideas suggesting fundamental change to the existing structure in the allocation and disbursement of money through the skills levy. It presented a radical departure from indicator driven strategies in which clearly set targets such as those that informed NSDS I and NSDS II had been set. The Consultative document as well as NSDS III which mirrors it, therefore appeared to break fundamentally with the demand-driven conception of economic planning which notionally permeated NSDS I and NSDS II. However, in the case of NSDS III the form of economic planning advocated was merely about achieving general economic targets to advance skills development. There was also an acknowledgement of the importance of coordination to achieve its objectives. But this rhetoric of economic planning and coordination under NSDS III is not fundamentally new and there is nothing to suggest that its practice will differ to what occurred under NSDS I and NSDS II.

When NSDS I was launched in 2001, the notion of economic planning was clearly articulated within the Department of Labour. At the time, a skills planning directorate was established to monitor and evaluate the progress of skills delivery under the NSDS. There was not much difference in the conception of planning that was associated with NSDS I or NSDS II. Although a lot of fuss is made in NSDS III about the absence of an institutional mechanism to provide for credible skills planning, NSDS III invokes a form of economic planning that has an even weaker demand-led imperative. This is the case, notwithstanding invocations that align it with economic planning. It is unlikely that the poor system of planning that prevailed under NSDS I and NSDS II will suddenly be overcome under NSDS III. Perhaps a

description of how the collection and processing of information for skills planning which occurred under NSDS I and NSDS II⁵⁸ can help explain why.

Despite making provision for baseline data of the skills embodiment of the working population in South Africa being collected partially through Sector Skills Plans (SSPs) and Workplace Skills Plans (WSPs), there was virtually no attempt to generate indicators of progress in the skills delivery system through information collected on an industry or sectoral basis (as in sector skills plans) or at the level of enterprises (as in workplace skills plans). In any case, enterprise level data would only be reliable if the firms had trust in the exercise: a propensity of firms providing ‘rubbish’ data to outsiders and keeping the ‘good’ data for themselves exists. Furthermore, it is more difficult when those receiving the data do not have the capacity to analyse it timeously. What else should one expect? To mitigate this problem, for NSDS I and NSDS II, broad baseline indicators (e.g. the indicators and targets under NSDS I and NSDS II) were generated for the entire macro economy. Where the data allowed, these baseline indicators were also generated for specific sectors of the economy (e.g. mining, manufacturing etc.). In a number of instances the data generated from this exercise was applied to industries that were demarcated to specific SETAs. Unfortunately, the DoL was not able to undertake the detailed analysis in which baseline conditions could consistently be developed for each sector. Industrial census data in South Africa is shockingly inadequate. In any event, the DoL subcontracted the work to academic research units and to the HSRC who inadvertently made use of the national household survey data to draw inferences on the labour market dynamics of industries and economic sectors in South Africa. This was essentially a modelling exercise using imperfect data. However, the HSRC did undertake a national enterprise skills benchmark study in 2000 (cited in Paterson, Visser & du Toit, 2008). It was followed up with further national enterprise skills surveys in 2003 and 2008 (Paterson, McGrath & Badroodien, 2005; Paterson, Visser & du Toit, 2008), which will be reviewed in our analysis of the incidence of employee training in South African firms.

The SETAs themselves often employed the same methodology to obtain baseline data for their SSPs. In many instances the data sources to the SSPs were very different from the data sources used by the DoL to generate baseline evidence. Many SSPs used data from industry

⁵⁸ These reflections are based on personal experience first as a researcher at the University of Cape Town who worked on some of the initial documents that fed into NSDS I, later as a board member to the NSA (2005-2007) and much later still as a board member to two SETAs during the last phases of NSDS II.

associations which did not necessarily concur with the evidence on hand in the reports used by the DoL, which was mainly generated from the October Household Surveys and subsequently the Labour Force Surveys. In the early period of the NSDS (2000-2004), many SETAs did not have the capacity to generate useful or reliable data to populate the SSPs. It meant that baseline evidence in SSPs could not be established. This was not a deterrent to the DoL. Using the aggregate baseline evidence which it had commissioned, the DoL proceeded to establish targets that were considered feasible within each of the time-frames of the different phases of the NSDS (i.e. 2001-2005 and 2005 to 2010). It gave the appearance of elegance but embodied crudity to the extreme. These targets were then adapted for each SETA so that the aggregate target for all the SETAs neatly corresponded with the aggregated macro target. Thus, from the beginning the DoL was the custodian of baseline evidence for the NSDS and it was the custodian of the implementation targets.

The National Skills Authority did not have the capacity to vet these, nor did it have the capacity to suggest alternative target measures once a specific phase of the NSDS had started. Under NSDS II, the stakeholders to the NSA played an important role in formulating target indicators. Unfortunately, the evidence to the new socially responsive targets was not verifiable externally and was thus highly reliant on DoL data and evidence. Consequently, the capacity constraints to formulate targets presented by the DoL were endorsed probably with only slight modification. Each SETA would have been allocated targets before the onset of the NSDS that would appear could be feasibly met within the time-frame of both the first and second phases of NSDS. Economic planning under both NSDS I and NSDS II was therefore highly centralized. One did not need reminding about this when conversing with DoL officials who typically referred to the SETAs as the implementing agencies of the Department. SETAs that produced accurate and good SSPs would have had an added advantage but SETAs that produced inaccurate and poor SSPs would not necessarily have been at a disadvantage. All they would have to do was to adhere to the prescribed targets assigned to them by the DoL. This scenario prevailed for each of the two phases of the NSDS. The NSDS III signaled that this conception of planning was about to end. It only appears credible under a less demand-driven skills strategy. But since the structure of the levy is still intact and in fact reinforced further so that bigger allocations from levy disbursements are made for work-integrated learning, there would be a tendency for planning to be shaped by the amount of money which is available for disbursements at any given time.

Despite the capacity constraints which were confronted in the implementation of both NSDS I and NSDS II, NSDS III had an even more ambitious ambit. A cursory reading of NSDS III may give the impression that NSDS III embodied less strategy and more policy. It would be a mistake to conclude this because the NSDS III contains both more policy with expanded strategic goals as well as an increase in the number of indicators that is used to measure the goals. Whereas NSDS I and NSDS II adhered to five objectives, NSDS III embodies eight goals. These are listed as the following:

- Establishing a credible institutional mechanism for skills planning (Goal One);
- Increasing access to occupationally-directed programmes (Goal Two);
- Promoting the growth of a public FET college system that is responsive to sector, local, regional and national skills needs and necessities (Goal Three);
- Addressing the low level of youth and adult language and numeracy skills to enable additional training (Goal Four);
- Encouraging better use of workplace-based skills development (Goal Five);
- Encouraging and supporting cooperatives, small enterprises, worker-initiated, NGO and community training initiatives (Goal Six);
- Increasing public sector capacity for improved service delivery and supporting the building of a developmental state (Goal Seven) and
- Building career and vocational guidance (Goal Eight).

These eight goals are supported by 16 outcome indicators. Each goal contains one or more outcome indicators. Each outcome indicator is further underpinned by one or more output indicators. In total NSDS III has 16 outcome indicators and 39 output indicators.

Goal 5 which deals with workplace-based skills development, makes no direct mention of firms and enterprises. In fact the two output indicators which make the strongest linkage to actual firms do so in the vaguest manner possible. In the one instance the output indicator states that ‘SETA stakeholders agree on the provision of substantial quality programmes for employed workers and report on the impact of the training (Output 4.5.1.1). In the second instance the output indicator states: ‘Cross-sectoral projects are established to address skills needs along local supply chains aimed at supporting local economic development (Output 4.5.1.3).

Under NSDS II weak vestiges to labour-demand imperatives still permeated the strategy. Under NSDS III these weak vestiges have virtually vanished to be replaced by a wholly supply-driven skills development strategy. The banishment of ‘apprenticeships’ that was observed to have occurred under NSDS I, is matched under NSDS III by the de facto banishment of profit-driven enterprises and firms as active agents in the formation and production of skills. Public educational and training institutions now begin to assume a more active role in the production of skills for the national economy.

7.3.4 Change in the Allocation and Distribution to the Skills Levy

In April 2010, the Department of Higher Education and Training released a consultative Framework for the NSDS. In this document a proposal was made for the introduction of a new component or ‘incentive’ that firms would be able to use when they submitted their WSP applications. In addition to the mandatory and discretionary grant funds which firms could use to finance their specific training needs, this new grant was referred to as a PIVOTAL grant and amounted to 10% of the overall skills levy. But just as there was a gain to be got of 10% on one side, it also led to a loss of 10% elsewhere in the distribution of the levy. Thus the proposal which DHET advanced was for a PIVOTAL grant that amounted to 10% of the skills levy. It would be funded by an equal 10% reduction in the mandatory grant. This means that the mandatory grant would decrease from 50% to 40%. Essentially, PIVOTAL grants were conceived to finance work-integrated learning programmes which the Department referred to as PIVOTAL programmes. PIVOTAL programmes were defined as follows:

‘Pivotal programmes are those ‘Professional, Vocational, Technical and Academic Learning’ programmes that meet the critical needs for economic growth and social development. They are also programmes that generally combine course work at universities, universities of technology and colleges with structured learning at work. This is achieved by means of professional placements, work-integrated learning, apprenticeships, learnerships, internships and the like. To achieve this goal, there must not only be improved access to, and success at post-school learning sites, such as universities and colleges, but there must also be structured bridges to the world of work and quality learning upon arrival there’(DHET, 2010a: 15).

This conception was cemented in NSDS III with a more precise definition a few months later in which the educational supply dimension of PIVOTAL Programmes was elevated above the labour demand dimension. Under NSDS III, PIVOTAL programmes:

‘... are programmes which provide a full occupationally-directed qualification. Such courses will normally begin in a college or university and would include supervised practical learning in a workplace as part of their requirement. The courses – especially for workers – could in some cases start in the workplace and then move to a college or university. The courses would culminate in an occupational qualification. PIVOTAL courses will normally be offered by arrangement between a SETA, an educational institution, an employer and a learner. Fundamental to the successful implementation of PIVOTAL programmes will be a model of cooperation between a SETA, a higher or further education and training institution and an employer. This will help ensure responsive curricula and courses’ (NSDS III: 2012: 9).

By introducing pivotal grants into the skills development equation in South Africa, SETAs and workplaces that offered the work-instruction component to pivotal programmes will be obliged to work with education and training providers particularly the public providers which the DHET preferred.

With the proposed changes to the disbursement of the levy being advanced through the consultative document to the NSDS III Framework, comments from multiple stakeholders to the skills development system in South Africa was elicited from by the DHET.

A small sample of responses highlights the contrasting positions taken by labour and business organisations – as custodians of demand-driven interests. Responses from the affiliated unions generally conformed to the position adopted by COSATU. Thus the COSATU submission supported the initial proposal which the Consultative document advanced:

‘We agree that these grants [i.e. Discretionary Grants P.L.] should be dedicated to the achievements of the Approved Sector Skills Plan imperatives. We also propose that the Total percentage of the Funds for this grant should be 30%. This is in line with the progressive approach to Discretionary Grant envisaged from the previous NSDS. This will also ensure that companies focus on the economic imperatives identified by the SSP including the social development imperatives as well’ (COSATU, Draft Alliance Response to NSDS III Proposals, undated).

The position from NUMSA echoed the sentiments of COSATU. In respect of PIVOTAL Programmes:

‘NUMSA support the introduction of Pivotal programmes.

That SETA’s support FET’s and public providers to better produce graduates qualified and needed by industry.

Means should be made to ensure that workers can be released during working hours to attend training – block release. National Curriculum (Vocational), NCV, must be reviewed to make provision for this need. We need Labour to be represented in the body/board that develops Vocational curriculum.

A labour pool should be created to ensure manning of the production line whilst workers go on training.

The labour pool would ensure that workers are not torn between training and overtime because shortages and extra demand would be taken care of by the labour pool' (NUMSA Submission to the NSDS III, undated).

While conforming to the COSATU position, SACTWU's argument was as follows:

'The NSDS Framework proposes that firms continue submitting WSPs and Annual Training Report (ATRs) and in return receive a WSP grant consisting of a guaranteed 40% of levy paid plus an additional pivotal grant.

SACTWU supports this proposal, specifically the reduction in the mandatory grant from 50% to 40%. This will encourage firms to desist from only submitting WSPs – as so many do – and encourage them to move increasingly towards implementation.

While SACTWU agrees with the reduction of mandatory grants from 50% to 40%, it is problematic for discretionary grants to exceed the mandatory grant threshold. The discretionary grant ought to be proportionately the same as the mandatory grants of 40%. In view of the importance accorded to pivotal grant programmes, which in a definite sense anticipates a shift towards more intelligent forms of economic planning, the Framework has set the amounts of the levy dedicated for pivotal programmes at an unrealistically low level. It is our contention that the pivotal grants be increased from 10% and rather be set at 20% of the skills development levy' (SACTWU Submission on Draft NSDS III, 15 July 2010).

Essentially the position of COSATU and its affiliates was for a 20% allocation of the levy for pivotal grants. If one includes the 20% that was already assigned to discretionary grant funding, it would mean a reduction in the mandatory grant allocation from 50% to 30%. This position also meant that the combined discretionary and pivotal grant would shift to 40% of the overall skills levy. Thus the position which COSATU and two of its affiliates put forward in its engagement with the Framework document to NSDS III was similar.

BUSA as the employer body put forward a wholly different position. It argued:

'Business is not opposed to the introduction of the PIVOTAL Grants from the WSP. Many SETAs are already supporting such programmes and companies should benefit from this grant. As mentioned above, the challenge remains the rate of disbursement. Business insists on a significant decrease in unspent funds by SETAs before a major

change is introduced in the two types of grants (Mandatory and Discretionary). Reducing the Mandatory Grant by 10% may lead to a further accumulation of SETA funds given the current status of SETA reserves.

Business supports the principle of a gradual decline in mandatory grants over a period of time and an increase in discretionary grants only once SETAs (and NSF) can show that they are spending discretionary grants on training. As mentioned above this should happen when a better levy/grant model has been proposed and when SETAs have significantly reduced their reserves' (BUSA Submission: NSDS III Framework, undated).

Subsequently, in respect to the allocation mechanism to the skills development levy, NSDS III echoed the earlier Framework document. Thus, NSDS III set out:

'To give greater effect to these programmes and ensure greater employer participation, a PIVOTAL grant has also been incorporated into NSDS III. Ten percent of the mandatory grant will be dedicated to this initiative. Employers who provide workplace-based opportunities can supplement the cost of the programme with the grant from the SETAs. The SETAs, in turn are expected to ensure that 10% of the mandatory grants is ring-fenced to fund workplace-based training opportunities' (NSDS III, 2012: 14).

The ratio in the distribution of the levy between mandatory, discretionary and PIVOTAL grants had initially been set as 40:20:10 in April 2010. This was endorsed in NSDS III in an earlier version which was already in circulation in late 2010. A final version of NSDS III which can be downloaded from the government electronic portal⁵⁹ is however dated 30th March 2012. DHET initially appears to have been quite tentative about the funding regulations that it issued on the new levy disbursement ratio. On the 29th of April 2011 the first amendment to the SETA Grant Regulations (Government Gazette, 29 April 2011) where the 40:20:10 ratio allocating levy funds to mandatory, discretionary and PIVOTAL grants was formalized. In practice nothing really changed because the original regulations governing grant regulations under NSDS II was still in force. However in January 2012, new SETA grant regulations were again issued by government notice in the Government Gazette.

As is customary, DHET's SETA Grant Regulations for January 2012 invited comments from interested parties. These grant regulations reaffirmed the mandatory grant allocations would henceforth be reduced from 50% to 40% of the overall skills levy. Discretionary grant allocations continued at 20% of the overall skills levy while PIVOTAL programmes would

⁵⁹ See: www.gov.za/document/latest

make up 10% of the overall levy paid by employers. The amendment to the Skills Development Act of 2008 made provision for the establishment of a *Quality Council for Trades and Occupations* (QCTO). The long term vision was that the QCTO would absorb the function of all SETA ETQAs. The SETA Grant Regulations of 3 December reaffirmed that from 1 April 2013, each SETA, will transfer an amount equivalent to 0.5% of the aggregate skills levy for the sector to the QCTO. On the 1st of April the Minister of Higher Education issued a notice declaring that the QCTO would become operational from this date onwards.

Provision was made in the SETA Grant Regulations of January 2012 for all SETAs to transfer 0.5% of the total levy received by each SETA to the QCTO for it to perform its quality assurance functions. The regulations also clarified how surplus funds in mandatory and discretionary programmes would be treated at the end of each financial year. Thus, the draft regulations indicated that all surplus funds which a SETA had at the end of a financial year (i.e. 31st March starting in 2013) was to be transferred annually to the PIVOTAL grant fund within ten working days after the 31st of August. Funding commitments from a SETA beyond a particular training year using discretionary funds would now only be made for learners in PIVOTAL programmes. Formally – for the duration of NSDS I and NSDS II – SETA surpluses were held in a SETA discretionary grant account. Unclaimed mandatory grant funds would automatically be transferred to the discretionary grant account. The January 2012 grant regulations effectively meant that unclaimed mandatory grant funds would now instead be automatically transferred to the PIVOTAL grant account. The same would apply to surplus discretionary grant monies.

For almost twelve months from the time the January 2012 SETA Grant Regulations were published, except for DHET insiders, most analysts who had taken an interest in the matter, lived under the illusion that the matter had been finalized and the 40:20:10 grant levy allocation between mandatory, discretionary and PIVOTAL grant funding would eventually become operational. Personal conversations that I had with officials at numerous SETAs, confirmed that the original Grant Regulations of 1999 were still in place. For shorthand, these regulations specified a mandatory/discretionary split of 50:20 to the overall skills levy. The split recommended in the new SETA grant regulations of January 2012, as was argued above, had changed to 40:20:10, with PIVOTAL grants making up a new category which amounted to 10% of the overall one percent skills levy.

A third set of SETA grant regulations was published in the Government Gazette on the 3rd of December 2012. Over the twelve months between the publication of the second and third SETA grant regulations, something however dramatic had changed the understanding of the allocation to each of the grant windows: the mandatory, discretionary and PIVOTAL. We can only surmise that it may have been as a result of behind the scene consultation and lobbying from constituencies other than business though it is not amiss to note that the recommendations of the Inter-Ministerial Task Team which was published in August the following year, contains recommendations that echo what the SETA grant regulations of December 2012 specified.

The SETA grant regulations of 3 December 2012 mandated that mandatory grants were to decline from 50% to 20%. *Ceteris paribus*, in the context where only mandatory, discretionary and pivotal grant allocations were under consideration, a reduction of the mandatory grant to 20% unambiguously implied that the combined discretionary-pivotal allocation would be increased to 50%. Further provisions that the PIVOTAL grant amount would be 80% of this designated 50% allocation means that the discretionary allocation would be 10% and the PIVOTAL allocation would be 40%. Apart from the 20% mandatory allocation which the Grant Regulations for 3 December 2012 declares, it does not declare these accompanying figures for the discretionary and pivotal allocations as unambiguously as I am stating it. But this is the only valid interpretation.

Following the earlier January grant regulations, the SETA grant regulations of December 2012 makes provision for 0.5% of the total levy received by each SETA to be transferred annually to fund the QCTO. Provision is made for all unclaimed mandatory funds and interest earned in the financial year ended to be transferred to the discretionary fund by 15 August of each financial year. Unspent SETA 'administrative funds and any interest earned on funds must on 31 March of each financial year be placed in the discretionary fund' (DHET, 2012c: para. 3(4)). Furthermore: 'A SETA is required to allocate 80% of its available discretionary grants within a financial year to PIVOTAL programmes that address scarce and critical skills in its sectors' (DHET, 2012c, para. 3(6)). The funding regulations bind the SETAs to short-term expenditure cycles. Consequently, at least 95% of discretionary funds have to be committed or spent at the end of each financial year and it is permissible for only a maximum of 5% of uncommitted funds to be carried over to the next

financial year (DHET, 2012c, para. 3(11)). Remaining surplus discretionary funds must be transferred by the SETA by 1 October of each year into the National Skills Fund (NSF) (DHET, 2012c, para. 3 (12)). Only in exceptional circumstances can such surpluses be carried over.

Under NSDS I and NSDS II, the SETA discretionary accounts were accounts of last resort from which all surplus monies were 'swept'. These changes in the criteria of the most recent SETA grant regulations means that this account of last resort is no longer housed within SETAs. Its function has been transferred to the National Skills Fund.

More significantly the December 2012 SETA grant regulations reduced the proportion of the mandatory grant that can be awarded to employers who meet the eligibility criteria to 20% and not the 40% initially proposed in the Framework document and in NSDS III. Unclaimed mandatory grant monies would automatically be transferred to the discretionary grant by 15 August of each year. The December 2012 SETA grant regulations makes provision for at least 80% of discretionary grant funding to be allocated to PIVOTAL programmes. The remaining 20% of discretionary grant funding are for the funding of programmes designed to develop the sector in accordance with the priorities outlined in the SSP (DHET, 2012c, para. 6(14). Quite intentionally the December 2012 SETA grant regulations displaced the funding allocations that were suggested at the end of NSDS II which had the sequence of 40:20:10 for mandatory, discretionary and PIVOTAL programmes.

Excluding the 20% that is received by the NSF, the remaining 80% of the allocations to the one percent skills levy for each SETA are structured in the following manner:

- 10% is designated for SETA operations
- 0.5% goes to the QCTO
- 20% is the amount of the mandatory grant which employers can access if they meet all the eligibility criteria;
- 49.5% is the amount allocated to the discretionary fund. For the purpose of illustration let us round this off to 50%. A further 80% of this is allocated for PIVOTAL Programmes. Essentially this means that PIVOTAL programmes receive roughly 40% of the original one percent payroll levy. In contrast, the discretionary grant is reduced to 10% of the original one percent payroll levy.

Thus in terms of the allocation ratios of the one percent skills levy, for mandatory, discretionary and PIVOTAL funds, the splits under the December 2012 SETA grant regulations have changed to 20:10: 40. Mirroring a complete revolution from what prevailed until the end of NSDS II where the split was 50:20 to what was proposed (40:20:10), the world of the monies disbursed by SETAs from the 1st of April 2013 had certainly been turned upside down.

7.3.5 Nuances to PIVOTAL Programmes and the Practice of Sweeping

As was already shown (see Section 7.3.4), the final SETA grant regulations that DHET published in December 2012, proposed a reduction in the mandatory grant from the 40% that was originally proposed to 20%. Correspondingly this meant that the increase in the size allocation of the discretionary grant to 30% as was originally proposed would instead be increased to 50% of the aggregate skills levy⁶⁰. From this 50%, an amount of 80% is to be allocated as PIVOTAL grants meant for individuals on PIVOTAL programmes. Thus, under the new arrangement PIVOTAL grant funds would be roughly equivalent to 40% of the aggregate skills levy. The mandatory grant in turn would constitute 20% of the overall skills development levy. The new arrangement means that the discretionary grant funding (after allowing for the 80% portion to be spent as a PIVOTAL grant on PIVOTAL programmes) would in turn amount to 10% of the overall skills levy. Thus a ratio signifying the relationship between allocations to mandatory grants, discretionary grants and PIVOTAL grants would take the following form: 20:10:40.

At all SETAs, discretionary grant income was supplemented annually in the new financial year with unclaimed mandatory levy grant income from the preceding year. In SETA parlance this is referred to as ‘sweeping’ or transferring funds from one type of grant fund (e.g. mandatory) to another (discretionary). Unclaimed monies on the mandatory grant fund also meant that the actual ratios of levy income that was assigned to workplace skills training was in aggregate usually lower than 70% of overall funds collected from the skills levy. Thus it meant that the discretionary reserve account (all monies available for discretionary expenditure) always tended to be larger than the discretionary grant income for a particular

⁶⁰ The funding regulations to SETA grants often use the broader term ‘discretionary grant/discretionary grant allocation’ in reference to the combined discretionary plus pivotal grant allocations.

year (or the 20% of the skills levy income). In all instances however, all income available for discretionary grant disbursements even if not spent in the year in which the collections were generated is committed to projects and ring-fenced for discretionary project expenditure. However, the more complex nature of discretionary funded projects result in real time constraints becoming inscribed into the process of project execution. Thus for a significant proportion of discretionary expenditure there is the appearance of an hiatus between the skill levy collections and its almost simultaneous allocations to the discretionary grant accounts within SETAs and the manner through which discretionary grant utilisation of these funds is reflected within a given financial year. Thus the notion of ‘committed’ funds in discretionary accounts was used to mitigate the impression that the funds were merely idle and not being put into use.

In practice, discretionary projects are as a rule more complex to execute compared to firm-based mandatory projects (e.g. learnership and apprenticeship programmes versus programmes typically specified in WSPs which are normally classified as mandatory programmes and cater for the specific internal training needs of firms). Therefore the process of scrutiny and quality assurance from the side of the SETA requires greater technical, administrative and managerial competence and skill. This is especially evident when compared to the routine processing of mandatory grant applications that are conveyed through employer WSPs.

At the end of the 2009/2010 financial year, the newly appointed Minister for Higher Education and Training certainly perceived a more alarming picture of discretionary grant fund reserves – which while being committed to projects – remained unused for the financial year end. In the intervening years that led to this condition, many SETAs were able to acquire National Treasury permission to roll-over such ‘committed’ funds to the new financial year. Such roll-overs almost seemed routine until the Minister of Higher Education signalled an intention to put an end to it. It was reflected in the draft regulations for PIVOTAL Grant funding and subsequent SETA grant regulations which I discussed in the previous section.

In part, a way to speed up the processing of discretionary fund applications is to create a grant mechanism which has a more rapid outflow of expenditure built into it. The idea of PIVOTAL grants which would ostensibly finance experiential learning may be attractive in

addressing the slow outflows of discretionary fund expenditure that was operating in practice at the time. PIVOTAL Grants occupy an additional parameter from which levy funds can be applied for use in the provision of private sector skills development. But even with the onset of PIVOTAL Grant funding, the challenge to process PIVOTAL Grant applications at the same pace and speed at which PIVOTAL Grant income enters the aggregated SETA funding system is not automatically guaranteed. Essentially, one specific mechanism which has worked poorly has been replaced with a new funding entity which potentially has similar limitations. This limitation is the inability to process fund inflows at the same pace as fund outflows. It means that expenditure on either discretionary or PIVOTAL programmes and projects takes place too slowly. If employers do not take up PIVOTAL programmes rapidly enough, fund accumulations on PIVOTAL grant accumulations may mirror what occurred under discretionary grant accumulations.

Since the NSF will become the ultimate fund ‘swept’ into, the same problem of slow expenditure outflows versus rapid income inflows may in future also plague the reserve and expenditure accounts of the NSF. If this were to happen, the NSF would receive more funds than it is capable of spending, but on a much larger scale than has hitherto occurred.

7.3.6 The Higher Education and Training Ministerial Task Team on SETA Performance: 2013

The Ministerial Task Team (MTT) on SETA Performance was established by the Minister of Higher Education and Training in March 2011. The work of the task team extended over thirteen months, between March 2011 and May 2012. One can therefore logically presume that a draft report of the Task Team’s findings may have also influenced the conception of the December 2012 SETA grant regulations discussed in the previous section. The present overview of the MTT report, which was officially released in August 2013, will only be concerned with its conception and recommendation of distributive allocations for different SETA grant funding windows as well as its recommended allocation from the overall one percent skills development levy to the National Skills Fund.

The MTT formulated seventeen recommendations for the reform of SETA performance and related matters. However, in order of priority, roughly five recommendations have pertinence to the discussion in this chapter on the effect of the skills development levy on the coordination of firm-level training.

I shall start with recommendation 2(b) for which the MTT proposed an increase in the proportionate allocation of the skills levy to the National Skills Fund (NSF) from 20% to 30%. This was despite informing readers that the total revenue of the NSF in 2010-2011 was R2.1 billion, with operating expenses of R560 million, leaving a surplus of R1.4 billion. This surplus was incorporated into nett accumulated funds of R6.6 billion that was estimated would rise to R7.4 billion for the 2011-2012 financial year (DHET, 2013: 14). The MTT nonetheless suggested that the recommended increment in the allocation from 20% to 30% of skills levy income to the NSF was necessary to ensure that it had sufficient administrative capacity to perform its revised mandate. This was really a desperate measure to reverse a perennial problem of under-performance over a number of years in the overall skills development system in South Africa.

Under recommendation 4, the MTT proposed that the function and amount of the mandatory grant be changed. The recommended change was for the mandatory grant to decrease from the earlier 40% that NSDS III proposed to 20%. In its explanatory note to the recommendation the MTT explains that: 'The remaining 30% that had been within the mandatory grant should form part of the discretionary grant allocations so as to enable the SETA to play an increased steering role' (DHET, 2013: 15).

Recommendation 4 leads directly into recommendation 5 of the MTT report which is worded as follows: 'Strengthen steering through tighter use of an increased discretionary grant'. According to the MTT the discretionary grant 'should be targeted at substantive training for employed people in the different sectors as well as unemployed people entering the sectors in line with agreed upon sector priorities' (DHET, 2013: 17). The MTT suggested that funding from the levy-grant system should complement the medium term priorities of the fiscus. As the MTT report meticulously explained:

'Particularly with regards to medium term imperatives, funding from the levy-grant system should complement this programme funding through their discretionary grant funding and through their contributions to National Student Financial Aid Scheme (NSFAS) where programmes are consistent with sector priorities. This is critical to ensure that it becomes possible for learners to progress into, for example, a post-graduate programme in a priority field by accessing a bursary (the current system makes accessing of full bursaries very difficult at these levels). The approach, of SETAs giving monies to the NSFAS to complement the monies from the fiscus will

ensure that bursaries are centralized within the NSFAS and can be efficiently managed' (DHET, 2013: 17).

The MTT appears to have discarded the demand-driven approach to skills development in South Africa, replacing it with a supply-driven approach which elevates the needs of full-time students (those outside and about to enter the labour market) above that of competing firms (with employees inside the labour market) in the national economy. The MTT Report puts the requirements of students and young people earmarked to be inducted into the workplace above the needs of the established workforce who are the backbone to the productivity and innovation thrusts upon which firms make their calculations about economic growth and expansion.

Under recommendation 6, the MTT reinforces the idea that that SETA grant allocations should be reduced from 80% to 70% of skills development levy monies with a corresponding increased allocation from 20% to 30% to the NSF.

Finally, the MTT recommended under 12(c) that non-accredited short courses 'should be allowed (and offered by both public and private providers) but funded by employers (DHET, 2013: 28, recommendation 12(c)).

While DHET has not yet acceded to the recommendation for the aggregate allocation from skills levies to the NSF be increased from 20% to 30%, it did implement the radical reversals in the allocations to mandatory, discretionary and PIVOTAL grants to the ratio of 20:50 or (ignoring for ease of calculation the 0.5% allocated to the QCTO) as the December 2012 grant regulations specified, a ratio of 20:10:40 for mandatory, discretionary and PIVOTAL programmes respectively.

In its 17 recommendations to the Minister of Higher Education and Training, the Ministerial Task Team makes recommendations for a more coordinated training system. Thus, what the MTT proposed was for a central mechanism or body through which the short-term, medium-term and long-term demands of skills can be analysed⁶¹. The recommendation is as follows:

⁶¹ In the body of the report this is listed as recommendation 9 (DHET, 2013: 21) but is unfortunately assigned a different number and labelled as recommendation 3 in the summary of the recommendations (DHET, 2013: 35).

‘There needs to be a central mechanism/body through which skills demands in the short, medium and long-term are analyzed’ (DHET, 2013: 21).

The Ministerial Task Team reaffirms the notion of a central mechanism to facilitate skills planning. Thus, central coordination with a high level of planning would be mainly controlled and instituted by the state through national skills institutions with representation from other stakeholders. However, within this process, the state and its organs are the dominant coordinating force within the national skills development system.

Almost a century long quest to coordinate education and training and subsequently skills development starting with the 1911 Conference on technical, industrial and commercial education (discussed in chapter 5), maturing through the work of the Riekert and Wiehahn Commissions and ending with the NEPI process (discussed in chapter 6) with a healthy balance of decentralization and consensus particularly from private sector firms and enterprises is obliterated in one clean sweep. The institutional legacy of these efforts which led to the construction of the National Training Board in the mid-1980s and later with the consolidation of the National Skills Authority which incorporated and expanded the functions of the NTB, was instead prefaced by abbreviated remarks and discussion by the Ministerial Task Team that gives state planning a central role in the South African skills development system.

But the notion of planning which the Ministerial Task Team holds is one of central planning. The model of central planning that the MTT holds is one which will be controlled by the Department of Higher Education and Training. The discretion and degree of autonomy of SETAs to respond to employer needs – as tenuous as this is already perceived to be – would be further eroded. In truth, the DHET would take the discretion away from SETAs to act by alone exercising such discretion. Central planning and democratic coordination do not have an affiliation. The relegation of coordination also corresponds with the recommendation by the Ministerial Task Team for the disestablishment or abolition of the National Skills Authority (DHET, 2013, recommendation 3, p.14).

7.3.7 The Green and White Papers on Post-School Education and Training

A Green Paper for Post-School Education and Training was released by the Department of Higher Education and Training in January 2012 (DHET, 2012d). It was followed by the release of a White Paper for Post-School Education and Training in November 2013 (DHET, 2013b). Both Green and White Papers embody the mission of the Ministry and Department of Higher Education and Training to build an expanded, effective and integrated post-school system. The intention is to achieve this mission by 2030.

While both the Green and White Papers cover a spectrum of the most important challenges confronting the post-school education and training system in South Africa, my focus in this section is to only analyse the components from these Papers which are relevant to the thrust of the concerns that the thesis addresses: which is the coordination of the supply of enterprise skill formation. Furthermore, because documents in respect of strategy, legislation, regulations including recommendations as embodied in the MTT Report on SETA Performance, has already been analysed in previous sections, this section merely captures the unique contributions which the Green and White Papers make in respect of a levy-grant system for enterprise training. Even though the report of the MTT on SETA performance was released more than a year after the Green Paper, the influence of the thinking from deliberations with members of the MTT are readily acknowledged in shaping specific proposals advanced in the Green Paper.

More importantly in respect of the overall integrity and strength of the South African skills development system, the Green Paper acknowledges limitations with the WSPs and ATRs despite being platforms to enabling firms to lodge initial mandatory grant claims. The problems were not with the claims lodged by employers but with the training and enterprise data which WSPs and ATRs provide. WSPs were seen not to reflect the real priorities of business. There was also a tendency in WSPs to ‘exclude programmes that result in a qualification, as these may take longer than a financial year’ (DHET, 2012d: 65). In other words, the Green Paper was being euphemistic about what SETA officials (with whom I spoke on different occasions) would describe the data and information that is conveyed by WSPs as ‘thumb sucks’. Thus WSPs provide ‘rubbish’ data and information. A similar qualification could be made about ATRs.

For instance, the Green Paper recognized that ATRs generally reflected compliance driven training that is financed through the levy-grant system:

‘In addition the Annual Training Report tends to reflect only the training linked to the amount claimed in the mandatory grant rather than to provide a picture of all training that has taken place in the workplace (DHET, 2012d: 65-66)

Thus the Green Paper on Post-School Education and Training tacitly admits that there is a segment of training which is financed wholly by employers. From my perspective, I have designated this as ‘out-of-pocket’ training expenditure. The Green Paper therefore tacitly acknowledges that neither the WSP nor the ATR provide outsiders with adequate information about the training activities which take place within firms and enterprises. It is clear that the authors of the Green Paper harboured the belief that both the WSP and ATR could be revised to provide a more reliable source of data to measure the process of acquisition of enterprise skills. These initial ideas did not lead to fully structured proposals but certainly provided an outlet for a more in-depth formulation which is postulated in greater detail in the White Paper released in 2013.

In the White Paper for Post-School Education and Training, the problem of information flow about the activity of workplaces and the provision of training that the WSPs and ATRs are meant to record, to which the Green Paper alludes, is reaffirmed. As the White Paper put it:

Problems include the format specifying what information companies are supposed to provide, the accuracy and comprehensiveness of information provided, and the number of enterprises which are actually submitting the required documentation. The number of large enterprises submitting plans has been dropping, and for smaller businesses the numbers that complete are insignificant compared to those that pay the levy. Another problem is that SETAs lack the capacity to evaluate the annual training reports against the workplace skills plans or to be aware of what employers are actually doing in terms of training’ (DHET, 2013b: 60).

The information flow problem between the enterprise at the micro level and institutions of the coordination of skill formation at the meso- and meta- societal levels (see Table 4.2 in chapter 4) inhibits coordination. It prevents SETAs, the Department of Higher Education and Training as well as other ancillary institutions that constitute the skills development system from acquiring data that is useful to make strategic decisions at both a sectoral and national level.

Thus the White Paper recommended that the mandatory grant no longer be awarded to firms and enterprises on the basis of achievements in training employees but exclusively on the basis of accurate data. This data will be captured and recorded in WSPs and ATRs. In future, employers will not have to report on how mandatory grants are spent by firms. Instead:

‘Employers must ensure that the WSP/ATR report includes comprehensive information about all training that is taking place in the workplace, current levels of skills, experience and qualifications of employees, and skills priorities and gaps for the short as well as medium term. Submission of this information will entitle the employer to receive the mandatory grant from the SETA. This grant will only require companies to submit useful and accurate data; there will be no need for employers to report how the mandatory grant was spent. Once the SETAs are able to obtain accurate data from workplaces, they can supply valuable information for the national skills planning process as well as plan and support educational provision. This will be a substantial benefit to employers, as it will enable skills gaps to be addressed’ (DHET, 2013b: 60).

Both the Green and White Papers are perhaps unrealistically optimistic about eventually obtaining information which is crucial for evaluating progress in the formation of workplace skills in South Africa.

In reaction to the socialist calculation debates of the 1930s (Boettke, 2001), where similar problems to that posed in the Green and White Papers on post-school education and training in South Africa were raised, intellectuals of the Austrian school of economics such as Hayek (1948) warned that this was patently impossible to overcome. The authors of the Green and White papers work from the assumption that firms have accurate knowledge of all training that takes place in enterprises and firms. As well as including training that occurs through formal-on-the-job training, training in enterprises is also acquired through work experience as well as through learning-by-doing (see chapter 3). However, it is unlikely that firms will have developed systems or the capacity to collect and process information at this level.

Even data about formal on-the-job training may be difficult to assemble without evidence of the formal award of the qualifications acquired. What the means of verification there will be within firms and enterprises as well as the consistency of the method of such verification is not even broached. Yet this is what will be required. Questions such as: was a certificate awarded to an incumbent and is it a valid qualification from a valid and registered training institution will probably have to be posed in detail and audited by an army of skills

development facilitators. In reality, it is extremely difficult to obtain this type of information in an accurate and reliable form even from consenting enterprises. It will be necessary to distinguish between good and poor information. Some firms and enterprises may not be averse to engaging in tactics of dissent and creative obstruction by providing false information. This can be the result when the award of the mandatory grant is no longer an incentive to firms. When is a presumed incentive, actually an incentive?

7.4 Incentives and Disincentives on Firms: From the Green Paper and Beyond

There is a paucity of literature on the effect of incentives within the system of enterprise vocational training and skill formation. It has been difficult to glean lessons that can be borrowed from scientific literature in ancillary fields where incentives are important (Diamond, 2008; Galán, Sánchez-Bueno & Zúñiga-Vicente, 2012). By a long stretch, it is the writing of the South African economist, Sean Archer (2010 & 2012) who perhaps provides the most suggestive insights into the multi-dimensional categories of incentives or dis-incentives which can potentially infest the skill formation system. This is contextualized in its current South African form.

Archer (2012) highlights especially the failure for information about the training needs and intentions of firms to be shared between themselves as well as with intermediaries. Archer (2012: 162) argues that this is a critical barrier which prevents outside interventions from influencing the rate of skills investment. Unfortunately, through the intermediary institutional function which was designed to generate the incentive for the system, a process of unanticipated hurdles which are disincentives creeps into the process. Archer's writing allows us to join the missing pieces in the jig-saw puzzle. He makes the following remarks:

‘To increase skills useful in production, intermediary institutions have to *mediate* the different interests of the employer, the worker, the training provider and the state. They do so (1) by compensating for the negative effects of incomplete information; (2) by lowering transaction costs for workers and employers; (3) by providing finance where workers face a capital market failure because they cannot borrow to enter training; and (4) by enabling the benefits of scale to be reaped by individuals and organisations engaged in training. This is a formidable list of compensatory functions not sufficiently recognized (Archer, 2012: 163).

In his earlier report, Archer (2010) made explicit reference to administrative and regulatory functions that SETAs performed through the current levy-grant policy in South Africa.

The object of concern in the intermediary functions that Archer discusses actually covers most of what SETAs do as well as the broad thrust of incentives which the overall national skill development in South Africa exhibits. One can reinterpret this more precisely as three clear incentive types which may also serve as a disincentive where the regulatory burden becomes too onerous. I refer to these three types of incentives as: *financial incentives*, *collective interest incentives*, and *informational incentives*. I shall discuss each of these three types of incentives that can conversely also serve as a disincentive.

7.4.1 Financial Incentives

The shift from a tax-incentivised training system to a levy-based system was an innovative attempt to construct a more comprehensive skills development system in South Africa. It was motivated less by the gains of financial returns and more to get commitment and involvement from employers and firms to advance training at the workplace. As was shown in Chapter 6 of this thesis, the Wiehahn Commission was the first to recommend this path which it did as early as 1980. The underlying postulates to the skills levy disbursement system in South Africa which was elaborated during the early phases of the new political dispensation (1994-1997) mirrored this motive. It was captured in the 1997 Green Paper on Skills Development. Embedded in the institutional design of the idea was an incentive encouraging firms to become involved and take joint control of the training function in their establishments.

The idea was based on a delicate balance between enterprise needs that firms would implement, sector needs which sectoral intermediaries (SETOs/SETAs) would coordinate and national strategic needs which the state through the National Skills Fund would fulfill. If a firm adhered to the policy prescriptions and effectively implemented its planned workplace skill needs it could retrieve up to 50% of the skills levies (through mandatory grants) that had been imposed on it within a given financial or training year. To get 50% back for what was conceived to be mainly modest on-the-job training requirements represented the marginal point at being either switched-on (incentivised) or switched-off (disincentivised). The literature on coordination drawn in particular from computer science and information systems

cited in the introduction of chapter 4 is useful in being able to model and mimic this process. In the case where firms opted out of the process, meant that even more was available to firms that responded positively to the incentive. Such firms would be able to retrieve 50% of their skills levy through mandatory grants and also qualify for discretionary grants. In theory, if they went beyond the call of duty and fulfilled their discretionary training obligations through the implementation of learnerships, it was possible to qualify for expanded discretionary funding thereby contributing further to the skills development process. The compliance obligations which firms were required to conform could nonetheless be experienced as onerous and bureaucratic.

Gradually, over time, as the contrast was drawn between firms that had initially shunned the system and firms which remained steadfast and participated became more noticeable, firms previously disenchanted changed their stance and participated as the evidence of the DoL showed (see Kraak, 2008a). Thus, there is a point where financial incentives can elicit a reasonable level of engagement and participation from firms.

The shift in the levy disbursement under NSDS III reduces the incentive to employers even further particularly on their mandatory training commitments. The administrative route to accessing such funding becomes more complex to firms than it was before. Mandatory grant funding under NSDS III was reduced from 50% to 20%. Discretionary grant funding was increased to 50%, but the criteria to access it introduced new conditions. These are administratively more complex to manage and implement from the position of the firm. Thus firms that had previously been switched-on with the possibility to retrieve 50% of the mandatory grant under previous disbursement policies have a much higher propensity to be switched-off when the same mandatory grant is reduced to 20% under NSDS III. In percentage terms, the fall in mandatory grant levels from 50% previously to 20% under NSDS III is equivalent to a 60% fall in training funds for on-the-job training, albeit mainly for non-accredited and short courses.

Even though it is more desirable at a macro-level for firms to expand their involvement on longer term qualification-yielding training programmes, which are typically financed through discretionary expenditure under the NSDS, the fact that they experience a decline in mandatory grant allocations will be perceived by the firms themselves as an immediate disincentive. It is possible that evidence can show there to be a pattern of substitution from

participating in formal government regulated programmes where emphasis is placed on longer qualification bearing programmes and instead opting out. Opting out can mean not undertaking any training at all but it can also mean expanding training on their own account. It can take place if firms expand their out-of-pocket training commitments on programmes which have immediate operational imperatives. These are typically short courses and short training programmes. The shift in the incentive certainly brings into play other options which firms can access and use to undertake their enterprise related training obligations. Data from an HSRC Survey (Paterson, Visser & du Toit, 2008) showed that there is in fact a high likelihood of this occurring.

7.4.2 Collective Interest Incentives

Unlike the situation in Germany where the formation of Craft Chambers at the end of the nineteenth century contributed to the emergence of a guild sector among small employers which has consistently reinforced the expression of collective interests among employers in the sector, the existence of collective employer interests under the NSDS was highly dispersed.

Moreover, in South Africa, it was harder to fathom what precisely collective incentives would be without differentiating the cluster of interests among employers. Ivor Blumenthal (2013), a flamboyant but controversial former SETA CEO, suggested that business as a whole had become weaker with the onset of democracy in South Africa. Cleavages between large and small business is often hard to discern resulting in business being presented as an amorphous whole. In terms of the skill formation process Blumenthal believes that business has become complacent and resigned from asserting its robust civic obligations within the new South Africa. He claims that this is done by accepting ‘its status as the whipping boy of government and organized labour’ (Blumenthal, 2013: 38). As Blumenthal remarks:

‘Organised business lost its will to exist as a proud collective entity asserting the rights of the business constituency in this country. The small business lobby completely disappeared and the version of a small business lobby which arose has been completely ineffective, while big business has become resigned to operating outside formal structures of government and the social partnership’ (Blumenthal, 2013: 38).

In the Western Cape metal and engineering industry, small and medium-sized metal and engineering firms dominate the industry numerically and through their voice in the Cape

Manufacturers and Founders Association. While constituting a relative niche segment, in the context of national organization (e.g. SEIFSA) and national policy interest (e.g. BUSA), the voice of the Cape Manufacturers and Founders Association would be drowned by bigger associations as well as large metal and engineering firms. Its specific interests in respect of public supported training provision would be missed. Specifically, the mainly small and medium sized enterprises of the Cape Manufacturers and Founders Association (CMFA) do not have the size advantages to operate in-house training schools or in-house training facilities. But these firms have a keen interest and commitment to enterprise skills development (Lundall, 2005; 2006). However, these firms generally require the availability of adequately provisioned ‘neighbourhood’ training schools/workshops to which their trainee apprentice and technicians can attend preferably on a block-release system. After theoretical and practical training of a trainee apprentice or technician at such neighbourhood or FET college or university of technology has been completed, it is preferred that the trainee returns immediately to the firm where employed. It allows him or her to round-off the training received with practical application at the workplace (Discussion with Ewald Wessels a retired member of the CMFA in October 2015). Unfortunately the levy-grant disbursement system does not cater for the expression of collective interests as discussed above and the manner by which their actions can be strengthened by an incentive system. This is because the national strategic needs of such employer groupings was not likely to be entertained by the National Skills Fund under NSDS II and is even less likelier under NSDS III.

7.4.3 Informational Incentives

Friedrich Hayek (1948) was perhaps among the first political economists to theorise the contours of informational incentives and disincentives. Hayek’s reflection on the matter can even serve as a postulate. As he noted:

‘...practically every individual has some advantage over all others because he possesses unique information of which beneficial use might be made, but of which use can be made only if the decisions depending on it are left to him or are made with his active co-operation’ (Hayek, 1948: 80).

Skills development and training at an enterprise level which is financed through retrievals on the levy-grant disbursement would automatically bring into play a degree of input and evaluation from SETA officials into the firm’s training activities. Firms may construe this as a trade-off between relinquishing some control to the SETA in exchange for the finances

which are provided. However, a line will be drawn in relinquishing such control over programmes which are financed solely on the basis of self-initiated out-of-pocket financing. Firms would perceive the training activities which stem from out-of-pocket expenses as simply none of a SETA's business. It is in this light that the concept of informational incentives to which Archer (2010 & 2012) earlier alluded has a lot of relevance as the third component to my discussion of incentives and disincentives.

7.5 Studies on Enterprise Training

Using evidence from Australia, Smith (1996/1997) argues that the notion of transferable general and non-transferable firm-specific training does not necessarily correspond to the evidence from actual firm surveys. Smith (1996/1997?) noted that firms in fact value general training which is easily transferable for its communication benefits, rather than for its technical content. From case-study evidence that Smith (1996/1997?) drew upon concerning evidence of technical training or firm specific training which was supposed to be less transferable, it tended to be outsourced to equipment vendors. Similarly, the view within Australian government agencies advising or overseeing skill formation policies and supported by academic research (Finegold & Soskice, 1988; Finegold, 1991) was that managers generally view training as a cost instead of an investment. It was presumed that managers within enterprises undertook decisions which reinforced short-term training goals. The case study evidence which Smith (1996/1997?) marshalled did not fully endorse this view. In fact, senior managers in the case-study enterprises were deeply committed to training because they viewed a skilled labour force as an essential feature of the long-term survival of the enterprise. It was the middle and junior managers at the operation level who held a more short-term vision. These lower level managers were unfortunately also responsible for the implementation of training in enterprises which usually led to less optimal results (Smith, 1996/1997?).

Similarly, there is the common view, confirmed by survey results, that small enterprises generally do not train their employees. Where training does occur, it is significantly less than the amount of training undertaken in large firms. However Smith (1996/1997?) noted that these results generally reflect the pattern of formal off-the-job training and enterprise expenditure on training. Informal and non-traditional forms of training which are common in

small firms are usually not recorded in such surveys. Thus, the evidence does not capture the commitment small firms have towards enterprise training. And as Smith (1996/1997?) remarks:

‘The nature of training is often different in small enterprises. The restrictions on resources and their isolation from training networks means that training may be delivered through a wide variety of largely informal means. Staff meetings, problem-solving sessions and the close day-to-day contact between employers in small enterprises are means by which employers in these enterprises learn. ... However, it would be unlikely that this form of training would be reported as training expenditure by the enterprise in a national survey’ (Smith, 1996/1997?: 148).

In subsequent work which referred to Smith’s earlier inferences, Smith and his co-authors (Smith et al., 2008) review different approaches that were applied in firm surveys conducted in Australia, the UK and Europe to measure and understand employer training expenditure.

Three components of their review (Smith et. al., 2008) is relevant to the discussion. The first point was to determine how these surveys measured the distribution of vocational expenditure borne by employers versus other groups. Second was to ascertain what training was funded by government, employers and individual employees. Third, was to ascertain what data firms maintained about training activity and how this training activity was measured.

In the survey of Employer Training Expenditure and Practices conducted by the Australian Bureau of Statistics (ABS) in 2001-2002, over one-third of employers who provided training were not able to report on the incidence of unstructured training. This is because they had insufficient records of the incidence of unstructured training. Similarly, a number of employers were also not able to report on their expenditure on structured training. This again was due to the absence of accurate records or the absence of relevant data (Smith et al. 2008: 13). This was more pervasive in firms with a decentralised structure (e.g. franchise firms). Firms which had to conform to more stringent quality arrangements such as ISO quality standards where keeping more systematic records about training expenditure is a prerequisite (see Smith et al. 2008: 31) were an exception. But most firms generally do not keep good records which measure the duration in hours away from work that employees attended for training. (Smith et al. 2008: 13-14).

Similar measurement problems are also endemic to surveys conducted overseas (the UK and Europe). An example is the 2005 National Employers Skills Survey which was conducted by

a private research company for the Learning and Skills Council in the UK. The survey had a question about the out-of-pocket training expenditure of firms but did not measure staff time associated with the activity, as a cost to firms. Furthermore, the survey captured the amount of total expenditure but did not make provision for expenditure on constituent elements of the training (Smith et al. 2008: 17). While the UK National Employers Skills Survey represents a breakthrough in terms of out-of-pocket expenditure of firms, both the Australian and UK Surveys continue to under-estimate firm level training expenditure. Thus, where such under-expenditure is recorded, firms themselves bear the burden. Typically, this is the product of the unrecorded out-of-pocket expenses which enterprises themselves bear. In their summation of the data which firms kept about training activity and its measurement, Smith et al. (2008) made the following observation:

‘There was considerable variation in the training expenditure data kept by the case study organisations. In the case of smaller organisations, very few records were kept, and estimates of training expenditure by managers in these organisations were little more than informal guesses. In the larger organisations, more extensive records were kept of training activities and of expenditure on training. However, although larger organisations kept good records of the training carried out and the training received by individual staff members, records of expenditure on training were much more difficult to access. Often data on training expenditure were not kept by training departments but might be found in other areas of the organisation. Sometime, expenditure data were scattered across a number of locations, especially in organisations with a number of divisions and therefore a number of different training “centres”. This made it very difficult even for the best organised firms to report on their training expenditure patterns with any degree of accuracy. This lack of data or lack of data accessibility was reflected in the fact that all of the case study organisations experienced significant problems with the questions in the Training Expenditure and Practices Survey questionnaire (Smith et al, 2008: 37).

Measurement problems such as these may even be endemic to South African enterprise skill surveys which try to measure the incidence of enterprise training.

7.5.1 The HSRC National Skills Survey and Out-Of-Pocket Expenses

Quite an extensive literature on enterprise training has in the recent period gradually also been assembled in South Africa (Badroodien, 2003, 2004, 2005; McGrath & Paterson, 2008). These discussions draw on data derived mainly from three national skills surveys conducted in South Africa by the HSRC. These surveys consisted of a baseline survey conducted in 2000 (Kraak, Paterson, Visser & Tustin, 2000 cited in Paterson, Visser & du Toit, 2008), and two national skills surveys conducted in 2003 (Paterson, McGrath & Badroodien (Eds.),

2005) and 2007 (Paterson, Visser & du Toit, 2008). The 2003 and 2007 national skills surveys (NSS) used a similar methodology and with only minor amendments, deployed the same question. Since the report of the results to the 2007 survey provides comparison with the results from the 2003 NSS and the 2000 Baseline Survey, the 2007 NSS is the basis of my own interpretation of these surveys. Thus, illustrative data will only be drawn from tables presented in the report authored by Paterson, Visser & du Toit (2008).

The problems which Smith (1996/1997?) identified as endemic to Australian and European enterprise skill surveys are not absent from corresponding South African surveys. Firms can engage in out-of-pocket expenditure as a contingent measure to counter unresolved expectations which the existing state regulated training levy fails to resolve. Here firms can treat the levy as a tax and disengage from the levy altogether or they can treat the levy as a tax and still continue to engage with the levy. Where firms expend on out-of-pocket expenditure at the same time as engaging with the skills levy, it is quite likely for them to operate a system of dual investment training expenditure. They themselves would manage it as an internal calculative practice. The points on calculative practice were raised earlier by Cutler et al. (1977; 1978) and (Miller, 2008). However, when firms engage in calculative practice, they are likely to engage in a practice of ‘substituting’ the results of their training outputs to retrieve levy income: if their levy training performance does poorly (with the potential of enduring penalties on delivery failure). Thus, they are likely to substitute the results of their positive out-of-pocket results and impute this as positive results from levy-induced training. It is merely a smart way of masking under-performance which is subject to government compliance conditions but also to maximise the benefits of full levy retrievals.

Badroodien was quite explicit about the imprecisions in measuring the incidence of training in South African firms:

‘There are three reasons why it is not yet possible to predict accurately the number of workers presently being trained in South Africa. Many firms may be training workers but are not yet participating in the levy-grant scheme; otherwise, they are not claiming back their levies (thus treating the skills levy as a form of tax); alternatively they are training workers and not being registered because their annual turnover is less than R250 000’ (Badroodien, 2003: 442).

Although the HSRC surveys were not able to differentiate between the incidence of firm-led training performed as a result of compulsory obligations to the 1% national skills levy, versus

training that occurred beyond the ambit of the levy which firms voluntarily undertook (i.e. out-of-pocket-expenses), the evidence from these surveys are still insightful. In the 2000/1 financial year, the HSRC Baseline Survey suggested that across all sectors, firms in the aggregate spent 1.3% of their payroll on training (Paterson, Visser & du Toit, 2008, Table 4.27). The 2003 HSRC NSS showed that this aggregate training expenditure for firms in all sectors increased to 2.0% of payroll in the 2002/3 financial year (Paterson, Visser & du Toit, 2008, *ibid.*). It increased further to 3.0% of payroll in the 2006/7 financial year according to the 2007 HSRC NSS (Paterson, Visser & du Toit, 2008, *ibid.*).

Supposing that all firms that responded positively to the HSRC National Skills Survey for both 2003 and 2007 were compliant with paying the 1% skills development levy for each of the time periods of the survey, we can deduce that firms in 2002/3 contributed an extra 1% (i.e. 2% minus the 1% skills levy) and firms in 2006/7 contributed an extra 2% (i.e. 3% minus the 1% skills levy) to training above and beyond the 1% skills development levy which they incurred. These amounts can actually be inferred as ‘out of pocket’ expenses incurred on training. If we concentrate our analysis on firms by enterprise class size, there is even greater variation in the incidence of the out of pocket expenses. For small enterprises the incidence of out of pocket expenses increase from 0% in 2002/3 to 0.6% in 2006/7. In the case of medium sized enterprises, out of pocket expenses increased from 0.3% in 2002/3 to 0.8% in 2006/7. Finally, (bearing in mind that we are doing a mental calculation of the percentage shown in Table 7.1 minus the 1% skills development levy as has been done in the cases cited above) in large enterprises with an employee class size exceeding 150 employees, out of pocket expenses increased from 1.5% in 2002/3 to 2.8% in 2006/7.

Table 7.1 Expenditure on Training by Enterprise Size: 2000/1 to 2006/7

Enterprise Size	Training Expenditure as a % of payroll for different survey periods		
	2000/2001	2002/2003	2006/2007
Small (11-49)	n.d.	1.0	1.6
Medium (50-149)	n.d.	1.3	1.8
Large (150+)	n.d.	2.5	3.8
Total	1.3	2.0	3.0

Source: National Skills Survey 2007, ESSD Research Programme, HSRC, Table 4.27

Under the most conducive scenario, levy compliant firms that fulfill all the regulatory requirements under the NSDS for the period (i.e. the tenure of NSDS 1 & II) when the

surveys were conducted, would receive up to a maximum of 0.7% of their returnable levy income. Thus, out-of-pocket expenditure is a sunk cost that can only be retrieved as training benefits generated from the productivity of employees over the duration that they are engaged with a firm. None of the above surveys conducted in South Africa by the HSRC however tested for evidence of the incidence of out-of-pocket expenditure from firms – over and above the skills levy. I have tried to demonstrate the existence of out-of-pocket expenses through a small pilot survey which I conducted in preparation for this thesis. Only selected evidence is used to illustrate the results of this pilot survey.

7.5.2 Piloting Evidence of Out-Of-Pocket Expenses

My original postulate to search for evidence of out-of-pocket expenses was motivated by the work of Gregory Lee, a South African academic economist. In 2004, Lee suggested that ‘companies may choose not to participate in some or all of the activities’ (Lee, 2004: 247) in respect of skills training. ‘Instead’, he noted, ‘it is feasible that some organisations will pay the levy and have nothing more to do with the process (i.e. not participate in the SETA, not attempt to regain money from grants, and above all not change their training activities). Other companies may choose to participate in some of the initial activities, but not all’ (Lee, 2004: 247). This postulate also became enticing through my reading of the work of Alexandre Koyre, an historian of science (Koyre, 1943a; 1943b; 1953; 1955; 1968). Koyre’s work poses the possibility that mental modelling or thought experiments (Mach, 1976; Popper, 1980 [1959]; Nersessian, 1991; 1992; Boorsboom, Mellenbergh & Van Heerden, 2002) can lead to the clarification and testing of postulates used in social enquiry.

I tried to test this idea in pilot survey work involving a sample of 43 firms. I attempted to test whether firms viewed the existing skills levy as an adequate mechanism for training. I also attempted to ascertain the extent to which firms resorted to out-of-pocket training expenditures to fulfill their training needs. This pilot survey yielded the following answers as depicted in the tables below.

Table 7.2

Question 1 Has this business been able to fulfil all its skills and training needs through mandatory and discretionary grant claims lodged with the SETA for your industry/sector? Please tick.

		Yes	No	Total
Skills & training needs of business provided through mandatory & discretionary grants from relevant SETA	Number	23	20	43
	Percentage	53.5	46.5	100

From Table 7.2, 53% of firms (23 out of 43) indicated that the skills and training needs of the business was met through mandatory and discretionary grant claims lodged with the designated SETA. This figure is slightly more than half of the total in the return sample. The balance amounting to 47% or 20 firms that indicated the skills and training needs of the business was not provided through mandatory and discretionary grants from the relevant SETA.

The concept of out of pocket expenses ascertains whether firms that give a positive response (by answering ‘Yes’) and a negative response (by answering ‘No’) were required to make additional out of pocket expenses – that is expenses over and above the amount derived from the SETA for skills development and training undertaken. Firms that answered either: ‘Yes’ or ‘No’ to Question 1 theoretically could still incur out of pocket expenses to undertake firm level skills development and training. Answering ‘Yes’, as shown in Table 7.2 implies that the skills and training needs of firms had been met through either mandatory or discretionary claims lodged with the SETA.

However, in Question 2 of the Firm Survey, firms appeared to qualify the answer previously given in Question 1 by giving a more nuanced answer. Similarly the options shown in Question 2 allowed firms that responded with a ‘No’ to Question 1 to give a somewhat more nuanced reply. The response given to Question 2 suggested that firms that answered either ‘Yes’ or ‘No’ in Question 1, suddenly conceded that the business nonetheless had to incur extra out of pocket expenses to fulfill some of its skills and training needs. Table 7.3 which contains this data is shown below.

Table 7.3

Question 2: Did this business have to incur extra **out of pocket** costs (outside the levy) to fulfil some of its skills and training needs? Please tick.

		Yes	No	Not sure	Total
Had to incur extra out of pocket costs to fulfill skills & training needs of business	Number	36	4	3	43
	Percentage	83.7	9.3	7.0	100

Not all the respondents to Question 2 were sure (3 out of 43 respondents were unsure) about the actual situation with respect to out of pocket firm expenses for skills development and training costs. Four out of forty-three firms (9.3%) claimed not to have incurred out of pocket expenses for its skills and training needs. Significantly however, 36 out of 43 firms in the return sample (83.72%) acknowledged that they had to incur additional out of pocket expenses to fulfill the skills and training needs of the business.

The clear identification of ‘out of pocket’ expenses as a concept which firms perceived (via the managers who completed the Firm Survey) as being applicable to their unique circumstances, enables one to rank ‘out of pocket expenses’ as a category aimed at enabling firms to realize their specific skills and training needs. A number of options come up. The first realization can be exclusively as out of pocket expenses without financial support from the SETA. We can call this Option One. Or it can be as out of pocket expenses in combination with financial support from the SETA which disburses the levy grant directly to firms. We can call this Option Two. Finally, firms may shun having to incur out of pocket expenses. They can do it using two additional options which we refer to as Option Three and Option Four. For Option Three, they can categorically refuse to incur out of pocket expenses but be amenable to receiving levy grant disbursements from the SETA. This means that the firm will do some skills training. Finally for Option Four, they can categorically refuse to incur out of pocket expenses and similarly refuse to have any financial dealings with the SETA. A firm that chooses the latter option will also choose not to do any firm level skills development training whatsoever. This ranking was obtained by interrogating the evidence obtained through Question 3 of the Firm Survey and is shown in Table 7.4 below.

Table 7.4

Question 3: Indicate which skills development training provision has been more important for this business? Please tick one option only.

Most important skills development and training options to business	Number	Percentage
Skills & training provision acquired through SETA grants	3	7.0
Skills & training provision obtained through out of pocket expenses	16	37.2
Both options are equally important for the business	23	53.5
Not sure	1	2.3
Total	43	100

It can be seen from Table 7.4 that only a very small proportion of firms (7% or 3 out of 43) relied solely on SETA grants as a means of financing the skills and training provision of the firm. Although the return sample in this Pilot Survey of 43 firms is only of modest size, there was not any firm shown which shunned both the SETA grants and the payment of out of pocket expenses. One respondent was not sure about the firm's position on any of the options and therefore indicated 'Not sure' as a reply.

Two categories stand out. Slightly more than one-third of firms in the return sample (16 firms or 37.21% of the sample) maintained that the skills and training provision of the firm is financed wholly through out of pocket expenses. In contrast, as was shown in the preceding paragraph above (3 firms or 7% of the sample) only three firms obtained their skills and training provision exclusively from SETA grants. Thus, out of pocket expenses of skills and training provision occurs more than five-times more frequently than financing of skills and training provision exclusively through SETA grants (i.e. 16 firms versus 3 firms). However, more than half of the firms in the return sample (23 firms or 53.49% of the sample) indicated that financing of skills and training provision for firms are equally important to using SETA grants as well as out of pocket expenses of firms. The fact that all firms with the exception of one that gave a reply of 'Not Sure', had selected one of three options for the financing of skills and training provision within firms, namely: through SETA grants, through out of pocket expenses as well as through importance being attributed to both of the aforementioned options. It suggests that the skills development and training provision within the firms in the pilot survey sample receive significant attention.

7.5.3 Typical Out-of-pocket Expenses

Question 4 of the Firm Survey attempted to gauge the typical out-of-pocket expenses that a firm was likely to incur during any given training year. Although the question was structured and required each respondent firm to indicate from a pre-determined list what the out-of-pocket expenses were likely to be, it did make provision for open-ended responses under 'Other'. Unfortunately the open-ended part of the question had a very low response rate. This data is consolidated in Table 7.5.

Table 7.5

Question 4: Please indicate from the box below, the typical **out of pocket** expenses (outside the skills development levy) that this business is likely to incur during an average training year.

Typical out of pocket expenses likely to be incurred during an average training year	Number of Firms
Stipends for trainees attending skills and training courses and programmes	16
Catering costs	11
Transport costs	21
Books, stationery & study material	15
Course Fees	27
Training Fees/Salaries; Lecturer Fees/Salaries	19
Wages & salaries of staff attending skills & training courses/programmes	30
Hiring costs (venue, tools, equipment)	6
None of the above	1
Other:	
Costs for overseas training	1
Internal training	1
Not prepared to divulge this information	1
Not sure; can't think on a Monday	1
Payment to training provider	1
Training	2
Loss of production for course attendance	1

An ordinal ranking of the highest number of responses obtained for typical out-of-pocket expenses during an average training year (i.e. April Year One to March Year 2) showed that the most important expenses for firms in the return sample were as follows:

- Wages and salaries of staff attending skills and training course or programmes (30 firms);
- Course fees (27 firms);
- Transport costs (21 firms);
- Training fees or salaries; lecturer fees or salaries (19 firms)
- Stipends for trainees attending skills and training courses and programmes (16 firms);
- Books, stationery and study material (15 firms).

The fact that a very low response rate was received from the open-ended section to Question 21 justifies the selection of the structured option that respondents were given. Had I relied exclusively on open-ended responses to frame the interpretation of out-of-pocket expenses, there would probably have been serious data deficiencies from the replies that firms would

have given. Among the open-ended responses mentioned of typical out-of-pocket expenses that could be incurred by a firm in a given year included:

- Costs for overseas training (1 firm);
- Payment to a training provider (1 firm);
- Loss of production for course attendance (1 firm).

Among the responses obtained where no data was provided were the following:

- Not prepared to divulge this information (1 firm)
- Not sure; can't think on a Monday (1 firm)

Following from Table 7.5 above, Question 5 sought to ascertain the type of skills and training programmes that firms in the return sample typically sent their staff to attend during an average training year. If we do an ordinal ranking of the responses obtained, short courses and on-the-job training received the highest response. This was followed by specialized courses and programmes, accredited courses and programmes and skills programmes all showing an equal number of responses. Learnership and apprenticeship programmes were pegged further below. Surprisingly programmes offered through off-the-job institutional training provision involving FET college courses and programmes, university courses and programmes and university of technology courses and programmes received a significantly lower level of preference as a training choice for staff attendance.

Table 7.6

Question 5: Typically what kind of skills and training programmes would this business require for staff to attend during an average training year? Please tick the relevant courses and programmes.

Typical skills and training programmes that this business is likely to use during an average training year	Number of Firms
Non-accredited courses and programmes	14
On-the-job training provided by senior & skilled staff	33
Accredited courses and programmes	27
Short courses (less than five days)	34
Long courses (six months or more)	11
Specialised courses and programmes	27
Skills Programmes	27
ABET Programmes	4
Learnership Programmes	19
Apprenticeship Programmes	19
FET College Courses & Programmes	7
University of Technology Courses & Programmes	5
University Courses & Programmes	6
Private College and Private University Courses & Programmes	2
Other	
Costs for overseas training	1
Internships	1

The ordinal ranking of the data shown in Table 7.7 is reproduced again below. It shows the following:

- Short courses of less than five days were the most prominent manner that firms in the sample typically used to train their staff during an average business year (34 firms);
- This was followed by 33 firms that typically made use of on-the-job training provided either by senior or skilled staff during an average training year (33 firms);
- There was an equal spread among firms that preferred to obtain the skills that were required by staff members through three routes: Accredited courses and programmes; specialized courses and programmes and skills programmes (all three routes attained 27 responses from firms);
- The use of Learnership and Apprenticeship programmes as a route towards fulfilling the training needs of firms also both recorded an equal number of responses each obtaining 19 responses;
- This was followed by non-accredited courses and programmes which 14 firms gave as skills and training programmes that staff typically used during an average year;

- Attendance on long courses which extended over six or more months received a lower preference: only 11 out of potentially 43 firms chose this option;
- Finally as was noted above, institutional training either through course attendance at an FET, university or university of technology had potentially under 20% of responding firms choosing this option as a typical programme to enhance the skills composition of staff during an average training year.

7.5.4 Accredited versus Non-Accredited Enterprise Training

Among the glaring oversights which the researchers at the HSRC recorded is the notion of an aggregate training rate (Badroodien, 2003: 445-446; Paterson, 2005: 480-483; 490-494; Badroodien, 2005: 99; McGrath & Paterson, 2008: 303-304; Paterson, Visser & du Toit, 2008: 22-32). One would have expected evidence of this phenomenon to show up either as a training rate that has a lower or higher intensity (more hours assigned to training or training which leads to the acquisition of higher credentials). However, the HSRC data merely used this notion of 'training rate' to show the incidence of a greater number of employees undergoing training.

Nonetheless, the 2007 National Skills Survey⁶² does provide a breakdown of the firm level training undergone by employees within enterprises according to employee-class sizes for the periods: 2002/3 and 2006/7. This data is shown in Tables 3.11 and 3.12 in Paterson, Visser & du Toit (2008). I present the data from these two tables again as a consolidated table with the vertical and horizontal axes tilted so that a column of training standards could be represented as a column on the left-side of Table 7.7. Table 7.7 is merely a consolidation of the data that Paterson, Visser & du Toit (2008) presented⁶³.

I make the assumption that training which the HSRC National Skills Development Survey labelled as training 'according to standards' is a proxy for accredited courses. These can be short or long courses. The accreditation as is shown in Table 7.7 is in terms of: SAQA/NQF, other nationally recognized standards, ISO 9000 as well as other internationally recognized standards. Thus the total number of employees in small, medium and large enterprises that

⁶² Unfortunately, I have not been able to scrutinise the raw data and undertake my own tests; neither have I been able to peruse a copy of the 2007 questionnaire which is not attached as an appendix to the National Skills Report that I have downloaded from the Department of Labour website. Essentially I have relied solely on the data and analysis contained in the report authored by Paterson, Visser & du Toit (2008).

⁶³ There is just a slight variation for numbers in the total columns that I have corrected.

were trained according to standards represents the provision of accredited training. The third row from the bottom of Table 7.7 shows the percentage of employees who received training according to standards for these two time periods as a percentage of employees who received all types of training. Here we see that for 2002/3 versus 2006/7, the percentage of employees that received training according to standards was as follows: 38.7% and 37% in small enterprises, 36.8% and 29.9% in medium enterprises and 25.2% and 29.5% in large enterprises. We therefore notice that overall, for the two time segments, employees undergoing training according to standards in all enterprises captured in the survey increased by 1.9% as a share compared to the proportion of employees undergoing training classified as not to standards where an overall decline aggregate decline of 0.8% was recorded (see last row in Table 7.7; far right column).

The converse of this of course is the percentage change in the incidence of employees undergoing training (in small, medium and large enterprises) classified as 'not to standard'. I make the second assumption that training which is not to standard represents non-accredited courses and programmes. We can work with the assumption that a large segment of this non-accredited training that was presented as training not to standards is training on short courses. As was indicated above, in the aggregate, for the period 2002/3 to 2006/7, the number of employees across all class-sizes of enterprises undergoing non-accredited training declined by -0.8%. In large enterprises non-accredited training over the period also declined in fact by a larger margin of -5.8%. This suggests that large firms were using accredited training at a faster rate than they were using non-accredited training. However, there was still a 140% increase in the use of non-accredited training among large enterprises. The increase of both accredited and non-accredited training occurred over this four year period for both small and medium sized enterprises. Importantly however, the share in the distribution of non-accredited training (i.e. training not to standards) increased at a faster tempo in both small enterprises (by 2.9% or from 61% to 63%) and medium sized enterprises (by 10.9% or from 63.2% to 70.1%).

A limitation of the HSRC data is that it is spread over a relatively short period: 2002/3 to 2006/7. Had there been follow-up national skills surveys for subsequent years, one would have had access to a much better time-line of data. But despite this limited time-span, there is an emergent trend which the data documents even if rather tentatively. In an earlier work, I drew similar tentative conclusions from the trend of discretionary account accumulations,

which only became obvious and incontrovertible many years later (Lundall, 2003b). The trend that is observable on the basis of the HSRC National Skills Surveys for 2003 and 2007 can of course be demonstrated with more a more up to date national skills survey which is of dire necessity. Only a large institution such as the HSRC is likely to successfully execute such a survey in the present period.

What is this trend? All firms (small, medium and large) increased their incidence numerically of employee training for both accredited training (according to standards) and non-accredited training (not to standards). Overall, there was a marginal increase in growth of accredited training: it increased from 30% to 30.6%, a shift equal to 1.9%. This means that there was a marginal decrease in the growth of non-accredited training: it decreased from 70% to 69.4%, a shift equal to 0.8%. But there were differences in the shifts between accredited and non-accredited training for enterprises by class size. Large firms increase their uptake of accredited training. In small and medium sized enterprises, this uptake declined. Large firms decreased their uptake of non-accredited training (as a share). In small and medium sized enterprises, this uptake increased.

Small and medium sized enterprises were embarking on a gradual substitution of accredited training programmes for non-accredited training programmes at a relatively early stage of NSDS 1 and NSDS II. This is probably because of the stiffer compliance conditions that were being instituted through the application of the skills development levy. But they were not necessarily decreasing their involvement with accredited training programmes, merely hedging their bets, and spreading their risk. In large enterprises the opposite trends were being encountered. It is also possible that the incidence of non-accredited training for enterprises of all sizes was more likely to be funded by out-of-pocket expenses. Accredited training was more likely to be funded by the funds that could be claimed back from the levy (at either 50% via the mandatory grant or from discretionary grant claims for the remaining 20%).

We actually know very little about the structure of the claims for levy returns (for both mandatory and discretionary claims). But it is likely that firms would report on the progress of achievements for levy returns in a smart way. This means that potential failures for mandatory grant and discretionary grant reporting could potentially be substituted with reports on successes which firms are more likely to show on out-of-pocket expenditures.

Who would actually check to ascertain whether employee X who was to represent the firm for levy-grant training but departed the company prematurely versus employee Y who received training paid by the out-of-pocket firm training expenditure and successfully completed the programme is included or excluded from the final audit of completed training which is sent to the designated SETA? While this may be somewhat speculative on my part, I am trying to demonstrate that a much more complex process of working the books is at play here (Powell, 1990: 311)⁶⁴. Thus, the sociological concept of out-of-pocket expenses bears strong parallels to the concept of working off-the-books which firms in other contexts typically use to avoid contributions to social security and minimum wages (Also see the research work of Colin Williams and his colleagues (2013) at Sheffield University).

The incidence of a higher uptake in non-accredited courses for small and medium enterprises is likely to accelerate with changes in mandatory grant allocations which new SETA funding regulations potentially entail. This process of uptake into non-accredited courses is likely also to affect large enterprises. However without an updated national skills survey, the data to conclusively demonstrate this trend is absent. In theory it is likely. Factually, it still has to be shown. A relatively innocuous trend whereby firms albeit it, small and medium sized firms, slowly embark upon a process of substituting their training expenditure, particularly that portion which falls outside of immediate oversight of the levy-grant system and which is financed by out-of-pocket expenses towards non-accredited training, is more likely. It presents them with greater control and faster turnaround and even if it is aligned only to their short term operational needs.

A levy-grant system which gradually and systematically increases the regulatory and compliance oversight to training that is financed by retrievals from the skills levy, potentially contains a similar disincentive. It encourages firms (small to large) to shift from accredited training that is financed through the skills levy to non-accredited training that falls outside the skills levy and which can be financed through out-of-pocket expenses. Should this take place, it reinforces the preservation of a more liberal coordinated training system, one which policy-makers have encouraged firms to move away from as the state has attempted to build a training system has a more mandated form of training coordination underpinning it. This is

⁶⁴ I first became aware of the notion of working the books by reading this article by Powell (1990).

buttressed of course by laws and regulations enacted since 1998 as well as through different installments of the NSDS that has been implemented since 2001.

Since training that is conducted through the mechanism of a skills levy at the site of the enterprise is an example of training coordination through sectoral institutions (i.e. SETAs), training by means of out-of-pocket expenditure is a form of voluntary coordination outside the purview of such sectoral institutions. While it might mimic specific features of SETA skills development coordination, this is not necessarily the case. Ultimately, training through out-of-pocket expenditure is mainly coordinated through the dominant calculative mindset within the firm. Among others, this mindset can be on the basis of an engineering paradigm (scientific management), an accounting paradigm (cost control) or a paradigm influenced by various forms of human relations ideas (human resource management).

In any event, as a response to the economic and wealth potential of human resource management in firms, enterprises and organisations (see Bisschoff & Govender (2004); Steyn (2004)), education, training and human resource development practitioners have increasingly become established within such organisations particularly within the profit generating sector of the formal economy. In very large enterprises, managers drawn from the human resource management, 'personnel', 'training or skills development departments of such businesses have risen to occupy senior positions within their specific companies or within formal business enterprises. Such managers have tended to champion the importance of staff or workforce training development as a specific feature to profitable enterprises. Their disciplinary knowledge and professional affiliation almost instinctively compels them to behave in this way, mindful however of the organisational and economic imperatives of the firms and enterprises, in whose service they are engaged.

Table 7.7 : Permanent Employees Trained according to Standards by Enterprise Size in 2002/3 and 2006/7

Training	Enterprise Size											
	Small (11-49)			Medium (50-149)			Large (150+)			Total		
	2002/2003	2006/2007	% Change	2002/2003	2006/2007	% Change	2002/2003	2006/2007	% Change	2002/2003	2006/2007	% Change
According to Standards												
SAQA/NQF	15109	30890	104.4	19865	58730	195.6	30804	282336	816.6	65778	371956	465.5
Other nationally recognised standards	19331	29731	53.8	14707	23460	59.5	41976	15382	-63.4	76014	68573	-9.8
ISO 9000	6308	6521	3.4	13605	7516	-44.8	20261	27462	35.5	40174	41499	3.3
Other internationally recognised standards	9720	17873	83.9	6818	6750	-1.0	18601	8079	-56.6	35139	32702	-6.9
Total Trained to Standards	50468	85015	68.5	54995	96456	75.4	111642	333259	198.5	217105	514730	137.1
All Employees Trained	130308	229932	76.5	149499	322936	116.0	443484	1129629	154.7	723291	1682497	132.6
% of all employees trained to standards	38.7	37.0	-4.5	36.8	29.9	-18.8	25.2	29.5	17.2	30.0	30.6	1.9
Employees Trained (not to standards)	79840	144917	81.5	94504	226480	139.7	331842	796370	140.0	506186	1167767	130.7
% Employees Trained (not to standards)	61.3	63.0	2.9	63.2	70.1	10.9	74.8	70.5	-5.8	70.0	69.4	-0.8

Source: South Africa: National Skills Survey 2007, ESSD Research Programme, HSRC, Tables 3.11 & 3.12. Report written by Paterson, Visser & du Toit (2008)

Because the HSRC surveys were not able to differentiate levy-grant training expenditure from out-of-pocket training expenditure, evidence of the incidence of employee participation in firm-level training may in fact have been incorrectly attributed to the NSDS. Even without the NSDS, firms may in fact have undertaken a designated level of training as a proportion of payroll. Unlike what occurred in Australia where such incorrect forms of training attribution were exposed through qualitative in-depth case studies, this does not appear to have occurred in South Africa. A recent qualitative study of the training experiences at four firms (Cassim, et al. 2016) in the metal and engineering sector in South Africa suggested that there was a tendency among small and medium sized firms to favour on-the-job training above accredited training. Training in such small and medium sized firms also tended to be conducted on an ad hoc basis as the need arose (Cassim, et al. 2016).

7.6 Conclusion

Chapter 7 has provided a detailed exploration and elaboration of the design and construction of the skills development levy in South Africa. This design process started roughly in 1994 with studies conducted by NEDLAC and the NTB. The results of this culminated in a policy framework by the Department of Labour known as the *Green Paper on Skills Development*. The Green Paper's policy conceptions and formulation was almost wholly mirrored in the legislation and institutional design which followed it. Due to constant difficulties around its implementation, the initial legislation had to be repeatedly revised to accommodate new challenges and conditions.

I cover this period of statutory revision for two full phases of the NSDS starting in 2001. My analysis covered the documentary evidence to the statutes governing the skills levy as well as the institutions responsible for ensuring that the policy supporting the coordination of the supply of skills at the enterprise level is and was being coherently implemented. The analysis also broaches ideas and proposals to improve this central mechanism to the skills development system in South Africa which stretches over more than a decade until 2013 the rough cut-off period to this thesis.

The skills levy has been analysed in this manner because it is one of the pivotal mechanisms through which the coordination of enterprise skill formation in South Africa is secured.

Essentially, the skills levy traces the '*circuit*' – if one has the liberty to highlight a word Marx used to analyse the value form of the commodity – or the cycle of the flow in payroll levies from its inception as a compulsory obligation on firms to its collection by the SARS to its distribution to the SETAs and the NSF. The SETAs are the final arbiter in the process and reassign the levies collected from firms as a payroll tax back to the firms that have fulfilled specific criteria and indeed undertaken skills development and training. I have tried as far as possible to mirror the actual administrative and bureaucratic process through which firms have to proceed to finally retrieve the levy payments that are due to them. In the process, using an inference formulated by Sean Archer (2010 & 2012), I have developed closing remarks on the incentives and disincentives that the entire levy process has exerted upon firms under the new national skills dispensation in South Africa. This has been done to get a full understanding of the principal formal mechanism that is used to fund the supply of skill at the enterprise level. This funding mechanism is an important feature to the coordination of enterprise skill formation and the supply of skills. Thus, funding for the supply of skills is the principal objective of the skills development levy. This is also the reason why the components that make up the skills development levy is analysed in such detail.

Because the precise measurement of expenditure on enterprise training is often quite inadequate, this chapter tries to account for this inaccuracy by differentiating between the formal expenditure which firms incur when they train employees and the non-visible expenses which is hard to measure. I have defined the latter as the out-of-pocket costs of training. Thus, the final section to Chapter 7 provides insights into the incidence of out-of-pocket expenses which firms incur when undertaking enterprise training. This analysis is contextualized in terms of the reality which enterprises confront when administering the skills development levy in South Africa and its component parts, namely the mandatory grant and the discretionary grant. Evidence from the national skills surveys as well as my own pilot survey of a small sample of firms suggests that there is evidence of the incidence of out-of-pocket expenditure which firms incur. It represents a dimension of calculative practice at the enterprise about which very little is known. However, even though little is known about it, it is extremely important because it suggests trends among firms of a substitution of the training which is undertaken. This substitution is between levy-financed training and non-levy financed training. Non-levy financed training may be more pervasive than is expected. It is also likely to perpetuate enterprise training in non-accredited courses, many of which are short courses.

Confirmation of the existence of out-pocket-expenditures which firms make to ensure that their training needs are met under the current national skills development system, notwithstanding their compulsory levy contributions, is also significant from a methodological viewpoint. The literature on skills formation systems in which skills levies are prominent mechanisms to the coordination of enterprise skill formation is wholly silent on this phenomenon. It is implicit in the literature but has not been systematically tackled as a component and a source to the financing of workforce training within enterprises. It was mainly through drawing upon the work of Alexandre Koyré that postulates of the existence of out-of-pocket expenditure within firms could be made.

Confirmation of the prevalence of out-of-pocket expenses became noticeable through an interrogation of data contained in national skills surveys conducted by the HSRC. A corresponding test to confirm this trend was tentatively shown in a small pilot survey which I conducted.

Chapter 8: Synthesis of Observations and Findings to the Coordination of Enterprise Skill Formation

8.1 Introduction

This chapter consolidates the observations and findings of this thesis. These observations and findings are theoretical as well as empirical. The theoretical observations permeate the thesis but they are also explicitly formulated in chapters 3 and 4. In these two chapters a discussion defining skill and a discussion of the sociological understanding of coordination is formulated. The empirical findings are largely elaborated in chapters 5 to 7 of the thesis although it is my understanding that the findings are also informed by the theoretical premises which underpin the thesis. Both the theoretical observations and empirical findings contribute to the knowledge which the thesis attempts to advance.

However, it is pertinent to first locate the theoretical observations and the contribution that is made to the thesis. From the start, this thesis sets out to develop a sociological and historical narrative of professional, market and state initiatives in coordinating enterprise skill formation in South Africa. The initiative was viewed from the perspective of coordinating the supply of enterprise skills. It was necessary therefore to formulate a sociological framework in which the often vast and haphazard interventions to coordinate the skill provisioning and skill formation process at the enterprise or firm-level could be coherently framed. Although, the research evidence which was collected imposed necessary constraints on the manner in which the coordination of enterprise skill formation and the contribution which professionals, the market as well as the state was conceived in the thesis, it is important to bear in mind the constant effort I have made to narrow the margins between the evidence and the arguments which the evidence justifies. Thus, the margins between evidence and argument, typically masks a messy process of theorising.

‘Theorising’ is defined by Swedberg as the process before a theory is presented in its final form (Swedberg, 2016: 7). One’s theoretical postulates often shape the evidence that is sought in research endeavours. Perhaps C. Wright Mills captured this dilemma more crisply

when he noted that: ‘Facts discipline reason; but reason is the advance guard in any field of learning’ (Mills, 1970: 226). Translated into a contemporary format as Swedberg (2016) avers, this implies that a strong correlation exists between observation and theory, particularly in sociology. More particularly, because he conceives sociology as an empirical science, Swedberg actually remarks that ‘observation also belongs to theory’ (2016: 9). As Swedberg (2016) puts it:

‘In sociology you always start with observation, and you proceed from there. A second reason is that some important parts of observation are based on theoretical considerations’ (Swedberg, 2016: 9).

Essentially, observation is theory-laden. The theory informs what one sees. It also denies one being able to appreciate evidence about what in all probability is latent and therefore exists but cannot be seen or recognised. Some theories induce a blindness or misrecognition of the same phenomena and evidence that a better theory enables one to recognise and observe. In the following section, I discuss theoretical observations which the thesis drew upon and extended further.

8.2 Theoretical Observations

The strong correlation between theory and observation however does not mean that the theoretical observations are a crude reflection of the empirical findings to the thesis. Indeed, quite an intricate relationship exists between the core concepts of the thesis and the evidence which justifies its use.

Because I have been mindful of the constant tension between the quantitative and qualitative content of the subject matter to this research, I have also been mindful of the importance of maintaining a sense of integrative coherence in relating concepts to evidence. It was important to deploy the concepts of ‘skill’ and ‘coordination’ in particular without either becoming ontological or epistemological straight-jackets (see Abend, 2008 & Goertz & Mahoney, 2012). Abend (2008) goes so far as to plead for ontological and epistemological pluralism in sociological theory. The argument however is not new: Hindess & Hirst (1977) made a similar argument three decades before in respect of the theory of modes of production in a Marxist interpretation of history. Hindess & Hirst (1977) were however more

unequivocal in their denunciation of what they referred to as ‘epistemological privilege’. As they argued in their second co-authored book published in 1977:

‘An epistemology is a dogmatism in the sense that it posits a certain level or form of discourse as being epistemologically privileged and ultimately immune to further evaluation. To reject epistemology is to destroy the foundations of that dogmatism’ (Hindess & Hirst, 1977: 20-21).

The evidence which has been marshalled in this thesis is neither exclusively qualitative nor quantitative. It is both qualitative and quantitative. In defining skill (see chapter 3), an overlap between the qualitative and quantitative dimension of skill became apparent. An attempt was made to ontologically address the qualitative dimension of skill through: the social construction of skill, situating skills through intellectual disciplines and through national training discourse with a final discussion of an Anglo-Saxon versus a European conception of perceiving skills. But it was extremely difficult to coherently maintain a qualitative conception of skill, especially in a social field where there is a high level of contestation in accepting any definition of skill. As a result, a compromise had to be sought. It was elegantly embodied in the work of Francis Green (2011) in the United Kingdom and it is a definition which is hard to reject. I completely endorse Green’s definition: it is a good starting point.

However, there is a level of generality in the definition of skill which Green (2011) proposes and it actually extenuates problems of measurement. Measurement problems are of course epistemological. This is especially noticeable when epistemological pronouncements are normally invoked in disputes over the reality of objects and the measurement of the social conditions which are encountered in locating and examining such objects (also see Cicourel, 1964). Consequently, epistemological pronouncement is used as an arbiter between error and truth. Epistemological disputes are confirmed or refuted by observations that are codified further through measurement.

Thus, to accommodate the qualitative ontology of skill with the practical epistemology that reflects the reward, recognition and deployment of skills which firms and enterprises uphold in routine economic life which differentiates but also binds workers and employers, I reverted to inserting a quantitative proxy for skill. While it was substantiated through literature, some of which is drawn from human capital theory, this proxy enables one to view the composition of skill that can be acquired as an attribute held by individuals participating in the labour

market. These attributes can be measured. The components to this proxy for 'skill' actually refers to a more quantitative ontology which bears a closer correlation between the definition of skill and the source of skill as an acquired embodied attribute which people are able to possess. Such possession is an innate but acquired quality. Bridging the divide between the definition of skill and the sources which constitute elements through which the embodiment of skills in productive economically engaged individuals is enhanced, eases the measurement of the skill formation and acquisition process. To reiterate, the more quantitative but qualitatively-sensitive definition of skill which finally underpins the thesis consists of: skill as an acquisition through formal education, skill as an acquisition through formal training (both on and off the job), skill as the acquisition and accumulation of work experience and skill as the capacity for learning by doing. In the latter, skill is an attribute that is acquired through learning by doing.

A similar arduous process was ontologically and epistemologically navigated to arrive at a definition of coordination which is applicable in different settings. The definition was also sculptured to perceive the different levels through which the coordination of enterprise skill formation in South Africa ensued historically, stretching from the late nineteenth century to the current conjuncture.

Unlike the difficulty and fuzziness associated with an ontology of skill, resulting in a virtual mental gymnastics to bridge it with the practical epistemological application of skill, the ontology of coordination is semantically and conceptually less ambiguous. Thus, the definition of coordination advanced by Francis, Levacic, Mitchell and Thompson (1991) of bringing into a relationship otherwise disparate activities or events is quite easy to embrace. In its least adorned form, Alexander (1995) uses the title of his book: *How Organisations Act Together* as the fundamental ingredient which characterises coordination.

However, the application of the concept has metamorphosed for practical application. Over time, coordination has become embedded in analysis and designs to understand the rich array of institutional arrangements and structures that have been used to organise and build economies and societies. This process contributed to the formation of specific organs and structures with the state also facilitating improvements in coordination as a whole. The thesis thus documents the initial tentative application of the concept of coordination, from a

sociological perspective, from at least the early 1920s, in the work of G.D.H. Cole. These insights were quite evidently embodied in Cole's book, *Social Theory* (1920).

The insights by Cole were taken up even further by Gunnar Myrdal in his book, *Beyond the Welfare State* (1960). Myrdal's book was important because while it illustrated the pivotal coordinative role which the state played in social organisation as a whole, he also emphasised the coordinative roles which other groups and interests played in societal coordination. These roles contributed to an infrastructure which strengthened society, including markets and the social sector. Myrdal was supportive of greater decentralised self-government whereby citizens participated more actively and through which they exercised greater control. This arrangement served as a bulwark against centralised domination and postulates a more pluralist dispensation of the coordination potential that permeated the overall society. Myrdal thus postulates the state and society as a more complex set of bodies and institutions which react upon one another. In a sense, Myrdal sketches a degree of centrifugal coordination and intervention from the state which is complemented by a reverse flow of centripetal coordination from various interests onto the state and society.

A more coherent framework of both micro- and macro- coordination that is directly applicable to the skills formation process flows from Myrdal's conceptualisations. Thus, quite a detailed discussion was undertaken of micro-coordination which occurs at the enterprise level. This was done in order to elevate the concepts of enterprise planning and enterprise calculation. There is a strong current of enterprise planning and economic and enterprise calculation which contributes to the formation and supply of labour and workplace skills at the enterprise or firm-level of production and reproduction. Although the concept of economic calculation was first prominently articulated in the socialist calculation debates of the 1920s (see Hayek, 1948; Boettke, 2001), it is the theorisation of Hindess & Hirst (1977) that has given the concept greater prominence and currency. This work was extended in a two volume theoretical publication titled: *Marx's Capital and Capitalism Today* (Cutler, Hindess, Hirst & Hussain, 1977; 1978).

In a more general manner, Myrdal's work also anticipates the continuation of research on macro-coordination and especially the macro-coordination which has an impact on the overall skill formation process embodied within larger geographical boundaries defined by nationalism, language, geographical or regional formations. In particular, the detailed

comparative economic analysis which Prais (1981) and his collaborators undertook in the late 1970s and early 1980s has grown exponentially and has been taken further by comparative political theorists. This literature has spawned a thrust of scholarship which has acquired the descriptive mantle typically known as the Varieties of Capitalism (VOC) approach. Here, emphasis is placed on understanding the comparative institutional advantages which different forms of capitalism (e.g. liberal versus coordinated) have over the other.

Significant attention in the VOC approach is devoted to understand the importance which skill formation plays in providing an institutional advantage in the national productivity and prosperity of competing countries under different varieties of capitalism. Theorists who broadly embrace this approach but who write specifically on the issues of skill formation have done so from the perspective that it is a collective process. Thus, while there is no specific school of scholarship to designate theorists who adopt this specific approach which is generally located in political science/studies, where a neo-institutionalist framework as a perspective is more pervasive, they themselves refer to their work as the political economy of collective skill formation. Core research papers showing theorists affiliated to this school of scholarship are contained in publications edited respectively by Mayer & Solga (2008) and Bussemeyer & Trampusch (2012). However, it is the sophisticated monograph of Thelen (2004) with its extensive historical coverage and exquisite detail that compels readers to give serious attention and engagement with the phenomenon of the political economy of collective skill formation. Thelen's text sets a benchmark to the analysis of collective skill formation for supporters and critics alike.

An intriguing prospect however in this literature is the sheer resilience of countries finding themselves in opposite capitalist varieties being unable to extricate themselves from the capitalist variety or path in which they have been inducted. One reason for this strong level of institutional resilience is imputed to reside in the collaborative gains which economic power groups (e.g. employers, trade unions etc.) derive from institutional continuity. The thrust of this line of research orientation – typically referred to as neo-institutionalism – are explanations which place a high premium on understanding either a continuity or a discontinuity in the specific institutional configurations which result in countries that fall under either liberal or coordinated types or varieties of capitalism. Thelen's (2004) book *How Institutions Evolve*, incorporates the skill formation dimension as it takes place at the plant level and its infusion into supporting institutions is exemplary of a neo-institutionalism

that embraces the VOC perspective and applies the analysis to the skill formation process. Without abdicating my own unattached sociological pluralism, I certainly incorporate lines of enquiry which Thelen has suggested and I pose the question whether high levels of out-of-pocket training expenditure by firms is not in fact evidence of a disjuncture which is starting to germinate in the more recent phases of the South African skill formation process.

At a theoretical framework level, it is the work of Ernest Alexander (1995) which has provided the clearest and perhaps most comprehensive framing of the coordination of enterprise skill formation in the South African skills development system. Simply put, Alexander (1995) sees specific control mechanisms as the precondition for corresponding coordination structures.

Alexander (1995) identifies three specific control mechanisms which he refers to specifically as: price, authority and trust. Each is associated respectively with coordination structures which are described as: markets, hierarchies and community. Markets, hierarchies and community correspond to the descriptive etymology that I used in the discussion of Brint. Brint (1984) distinguishes between the market sector, the state sector and the community sector. Inspired by the work of Granovetter (1985) among others (see also: Fligstein, 1996; 2001, Richter, 2001), the new economic sociology highlights markets as social structures (see Swedberg, 1994). Alexander (1995) independently extends this conception to coordination structures. Through logical inference one can therefore argue that markets, hierarchies and community are coordination structures, each respectively under the control mechanism of price, authority and trust.

Since these control mechanisms impose a different coordination logic respectively on markets, hierarchy and community, using South African evidence as an illustration, I have furthermore infused the nomenclature of a market economy, a state economy and a social development economy that each of these control mechanisms have followed. I have pursued this representation through an historical analysis of the evidence. As a result I have referred to these control mechanisms as structural economies. It gives me the license to demarcate the skill formation orientation and attribution that each of these control mechanisms has followed over a given period. Thus, it has allowed me to tease out how these different control mechanisms or structural economies have related historically in South Africa. This process has been under way at least since the turn of the twentieth century and with greater

prominence when an internal resistance to apartheid in South Africa rose in prominence from the early 1970s.

Permeating the coordination structures and the control mechanisms, which ignite the momentum and action in coordination and specifically the coordination in the supply of enterprise skill formation, which this thesis addresses, is the importance which coordination tools or mechanisms play in the process⁶⁵. The most pervasive driver to the coordination of enterprise skill formation is mainly embodied in the resources that can be harnessed by firms in the private sector economy, the state (through its mandated authority) and the community or non-profit sector which I often refer to as the social development economy.

Firms mobilise resources for skill formation by assigning training costs to operational expenditure. Resources for enterprise skill formation are also mobilised by bargaining lower wages for apprentices and trainees. Collectively, firms in designated sectors and industries in South Africa set about putting into place rudimentary sector-based levy mechanisms. At first these were financed by dual employer-employee contributions. The generally low black employee wage structures in South Africa led to a discontinuation of employee contributions to such levy income. Gradually, as was shown in chapter 6, sector-based levy grant collection mechanisms were introduced in selected industries and industrial sectors.

The state facilitates the mobilisation of resources for enterprise skill formation through transfers for education and training as well as through tax incentive schemes. As was shown in chapter 6, these schemes were often complemented by the gradual development of national levy training mechanisms which were perceived to be more effective. However, the shift from sectoral training levy schemes to the formation of a national levy training scheme was not automatic or spontaneous. Indeed, this was only instituted in South Africa in the late 1990s.

The social development sector is also able to mobilise a wide spectrum of resources which flow into initiatives which have an orientation to enterprise skill formation. The spectrum through which such resources are galvanised extend from philanthropic allocations and transfers but also incorporate solidaristic and communal forms of allocation. Examples of

⁶⁵ The terms 'coordination tools' and 'coordination mechanisms' are used interchangeably in Alexander's review of the literature, but to avoid confusion, the term 'coordination tools' is certainly more preferable.

these encompass reciprocity, provisioning of gifts and assembling resources through sacrifice. Trust as a principle and a practice is an important control mechanism which structures the contours of the social development economy. Typically, interventions to enhance the skill formation repertoire of groups in the social development sector have been initiated by outsiders. Contributions from such quarters have been an important resource to the skill formation process in South Africa. The purpose of my commentary here however has merely been to give a broad theoretical overview which enterprises, the state and professionals have played over a significant historical period to facilitate enterprise skill formation and the coordination of its supply in South Africa. These early efforts have been magnified in different ways and have been extended into various forms in the contemporary period as well. This was demonstrated in the empirical chapters to this thesis.

8.3 Empirical Findings

In this section, a consolidated but synoptic overview is presented of the empirical findings to the thesis. It is important however to reiterate the object which this thesis from the start set out to undertake. This was to understand the process to the formation of enterprise skills in South Africa.

The question that was posed to address this objective was to understand what were the institutional mechanisms to the coordination of enterprise level training in South Africa and how it had changed over the period that the investigation was framed. Constant reiteration was given to the fact that the coordination of enterprise level training in South Africa or as I expressed it more formally, the coordination of enterprise skills formation, was sustained principally by research evidence which largely dealt with the coordination of the supply of enterprise skills formation. Importantly, a significant dimension of the spotlight to this process was on the enterprise as an organ or institution of economic production and reproduction. In this respect, the broader linkages between the enterprise or enterprises as a collective set of market institutions that had economic linkages with other types of institutions particularly with the state and society in general, was always important. Because the object of enquiry was to comprehend the change that occurred to the coordination of enterprise skill formation, the massive time-frame which the thesis covered meant that there would be a significant narrative dimension to the study. This was absolutely necessary to

account for the shifts in the episodes and systems in the coordination of enterprise skill formation in South Africa.

A more difficult evaluative question underpins the thesis. Here I of course posed the question whether the coordination of enterprise skill formation is likely to result in what was or is intended. I have addressed this question in a more discursive manner. It is quite difficult to demonstrate clear intended actions that have directed and shaped the formation of enterprise level skills in South Africa. The process of coordinating these intentions in the formation of enterprise level skills inadvertently bring to the fore the process of coordination.

Coordination melds together multiple actions: intended actions, contingent actions that come about when intended actions fail to materialise as well as a wide spectrum of calculative actions that germinate from the process. Contingent actions may be perceived as ‘second-best’ options taken to achieve the integrity of the intended actions. Thus, these may embody a similar intention but a different outcome. Calculative actions too may be rooted in a diversity of intentions. Some of these calculative actions may indeed be strategically well intentioned and designed to uphold the nobleness of the original intended action. On the contrary, other calculative actions may not be induced by a nobility of purpose but may in fact be motivated by inducements of opportunism and advantage which can be gained from cunning and reason.

It is for this reason that the opinions derived from informed sources to social research are typically post-factum rationalizations which largely ameliorates blatant errors of the subjects bearing witness. Ostensibly, many such subjects may feel to be under scrutiny in research investigations. For instance, the stasis and virtual suspension in apprenticeship enrolments in traditional manufacturing trades which occurred after 2000 when the new vaunted skills revolution of the post-apartheid government was under construction in South Africa (see Duncan, 2013 & chapter 7 of present thesis) would be cast in a more sympathetic light by DoL officials responsible for steering apprenticeship enrolments in particular at the workplace. An objective evaluative analysis would therefore require an intricate understanding between intended outcomes, contingent outcomes and calculative outcomes: noble as well as deviant. Ultimately this would make an objective evaluative analysis of the process much more difficult.

It is for this reason that the evaluation of the subjective intentionality of the actors involved in the process of enterprise skill formation (i.e. enterprises, the market economy, the state and the social development sector) has been no more than discursive. Despite this limitation, a substantial body of verifiable and documentary evidence has been marshalled in the empirical chapters to this thesis (chapters 5 to 7) to demonstrate the process in the formation of enterprise coordination in South Africa, roughly, over the last one hundred years. Importantly, the documentary evidence traces the rudimentary institutional construction of a national skills development system in South Africa. It occurred incrementally but consistently throughout the period of the twentieth century. Since the mid-1990s, these changes to the institutional configuration of a national skills development system in South Africa have been quite significant.

The evidence in chapter 5 shows that a vibrant discussion existed in South Africa about the need to improve the coordination of workplace training. One source drawn upon for insight into the discussions was government Commissions of Enquiry. These Commissions of Enquiry constantly emphasised the need to improve the coordination of disparate systems of workplace training replacing existing systems with a more uniform and standardised system of workplace training. The Apprenticeship Act set into motion the initial institutional structure for better coordination of enterprise skill formation, mainly through provisions it made for the establishment of Apprenticeship Committees. Apprenticeship Committees consisted of both local committees with a defined regional responsibility and national committees which had national coverage. These committees were designed to address challenges concerning apprenticeship selection, the incidence and quality of training provided to apprentices within enterprises, as well as overseeing apprenticeship contracts between apprentices as trainees and enterprises and firms as employers and custodians of workplace experience and training. In 1944 provision was made for establishment of a National Apprenticeship Board (NAB) which had supervisory and regulatory powers over all apprenticeship committees. The NAB was also assigned with mandatory powers to advise the Minister of Labour on all matters related to the Apprenticeship Act.

The institutional formation of apprenticeship committees and later the NAB was an attempt by the state to improve the regulatory and coordination oversight on firms and enterprises as it affected the acquisition of artisanal and other intermediary skills which enterprises were well placed to produce. This level of focus and scrutiny from the state and its ancillary

institutions (e.g. political, legislative, administrative and investigative scrutiny respectively through the Ministry of Labour, parliamentary legislation, Apprenticeship Committees and the NAB and finally through the scrutiny of Commissions of Inquiry) prised open and subjected enterprises to other forms of scrutiny from non-state institutional vehicles. Armed with new disciplinary knowledge practices and techniques a wide spectrum of intellectuals mirrored as well as initiated trends occurring elsewhere in the more advanced industrial centres internationally and globally in which this new knowledge was applied to improve the industrial and organisational management of firms and enterprises. Thus, the skill formation imperatives which confronted firms and enterprises and the labour force engaged within these was not immune to the appropriation of such covert but more often overt forms of industrial management. Ultimately, these new knowledge controlled practices had an impact on enterprise productivity and enterprise profitability.

Gradually the state was also drawn into the orbit of these new knowledge disciplines, often spell-bound by the intellectuals who were at the forefront, many of whom served as advisors to the state on specific and critical policy in the realm of human resources development and industrial management. Evidence was marshalled to bolster the pivotal role which Industrial Psychology – its subsequent derivatives and appendices occupied – as a central pillar of knowledge organisation and application in the history of enterprise and industrial management in South Africa. The two world wars undoubtedly were an important catalyst for these developments. More importantly, the success of the institutions that were erected as vehicles to carry the process forward symbolised the promise of big science which the state favourably embraced. National scientific research organisations such as the CSIR with its plethora of sub-divisions among which was the NIPR and later the HSRC were institutional and organisational outcomes stemming from these state initiatives.

While it is important to acknowledge the overall thrust in the formation of new institutional and organisational configurations which the state enthusiastically endorsed, one should also appreciate that such an enthusiastic uptake still necessitated prudence and frugality in contrast to extravagance and waste. Thus, the good intentions of managing and coordinating a denser and more complex set of organisational arrangements often led to the principles of prudence and frugality been forgotten. As this occurs, institutional responsiveness to new systemic and organisational imperatives become more difficult and the original problems which the measures sought to address are compounded.

This is the scenario which appears to have developed in South Africa by the early 1970s as strains began to be experienced in the racial division of labour within the workplace. More significantly in South Africa, the contemporary social struggles while often mirroring these social strains in the division of labour were also fuelled by the quest for political freedom and emancipation from the oppressed majority. The systemic coordination of enterprise skill formation in South Africa – its contemporaneous production and the trajectory of its reproduction – apart from modernising and reforming the apartheid project – were serious challenges confronting the NP regime under the leadership of Prime Minister B.J. Vorster.

Because of its seminal importance in serving as a conceptual rescue mission and navigational tool to the reform and modernisation of the apartheid system in South Africa, including the important question of the coordination of enterprise skill formation, quite a detailed analysis was devoted to analysing the Riekert and Wiehahn Commissions of Inquiry. The findings from these Commissions of Inquiry provided systematic documentation of the triumphalist but poorly planned and coordinated system of enterprise and workplace training interventions which had come into existence in South Africa. This was the situation when the findings from these Commissions began to be released.

Quite a detailed extraction of evidence from the first two reports of the Wiehahn Commission in particular was documented and analysed. In its findings to the South African government the Commission recommended systemic improvement to the coordination process of enterprise skill formation. This was addressed on two related fronts which hindsight shows to have been strategically and organisationally astute. First, there was a clear attempt to radically streamline policy. The principle of streamlined policy was meant to improve the efficiency of its implementation.

The second front around which it proposed to significantly improve coordination of enterprise skill formation was through rapid and radical institutional construction and reconfiguration. The importance of institutional design and construction cannot be emphasised enough in comprehending the effectiveness of programme and project coordination. This dimension or front, notwithstanding the radical break in politics and policy, which was to ensue with the demise of apartheid from 1990 to 1994, appears to have

had much greater continuity with skills development policy instituted during the 1990s and beyond.

By putting into place an effective institutional basis for improvements in the coordination of enterprise skill formation, quite a detailed and expansive process was embarked to secure a sustainable funding and incentive system for sector and national enterprise skill formation which could then be institutionalised. The Wiehahn Commission laid the basis for this and it was given serious consideration by the Department of Manpower which had the political authority to institute the findings of the Commission. These considerations were taken up in a more systematic manner by the triumvirate of institutions which were drawn upon to strengthen the coordination of human resource development in general and the coordination of enterprise skills formation in particular. These triumvirate supporting institutions included the: National Manpower Commission, National Training Board and Human Sciences Research Council. In their subsequent explorations and investigations, sector or industry-wide levy grant mechanisms were identified as desirable. These were seen as a precursor to the construction of a national levy grant system which was seen as the final destination but whose implementation at the time (1986-1989) was still not feasible. However, since these proposed improvements into the coordination of enterprise skill formation was still only at an initial discussion and planning stage, it was also seen by those in opposition to the apartheid regime especially in the mass democratic movement, as part of a process to reform an apartheid system, albeit one which was more enlightened or 'verlig' in orientation. But an opportune moment presented by history, to even reform the skill formation system then in place in South Africa, was almost at an end.

The political changes which started to take place in South Africa after 1990 brought the process to a halt. From this moment, revisions and reconfigurations in the institutional landscape to the coordination of enterprise skill formation in South Africa would henceforth be under the hegemony and dictates of a new but democratic political regime. However, almost reminiscent of the notion of liberated zones or dual power which activists in South Africa drew from the experience of Frelimo in Mozambique and from Lenin's theorisation of the Russian revolution, the notion that there were alternative skill formation experiences and positions from that advocated by the apartheid regime was widespread. There was attractiveness in such a conception and a potency with which it was implemented in South Africa, in however small way. Like the village commune in Stolypin's Russia, the social

development sector was a breeding ground for experiments in alternative educational and skill formation practices spanning NGOs, trade unions (e.g. NUMSA), universities (e.g. EPU and Adult Education Departments and Centres) to educational associations and lobbies (e.g. NECC). It was from these disparate groups that a more systematic programme began to be formulated on a new educational and training dispensation in South Africa. Although the proposals which NEPI formulated on a national skills levy were quite general, it signified a commitment to critique the rather incremental formulations towards a national levy grant system which the NTB was still discussing and debating. While the groundwork for this discussion by the NTB was quite thorough and systematic, the historical moment had shifted and new forces had entered the fray. These new forces had a greater urgency to change the contours of history in South Africa.

Chapter 7 presents a case study of the effect of the skills development levy on the coordination of enterprise level training in South Africa from the mid to late 1990s until roughly 2013. It shows a high degree of continuity between the commission-of-enquiry style-approach which had been infused into the NTB/HSRC investigations into enterprise skill formation, to that which followed immediately after a new democratic government was installed. This was embodied especially in the NTB/NEDLAC funding mechanism research enquiry whose reports were released in 1997. The findings from these reports influenced the 1997 Green Paper on a Skills Development Strategy. The chapter then proceeds to give a detailed account of the formulation of a levy grant allocation mechanism in the Green Paper as well as the structure and operation of a national levy grant system as prescribed by legislation, namely the Skills Development Act and the Skills Development Levies Act. The narrative which I have assembled traces the construction and implementation of a national skills levy in South Africa including the amendments which led to some revisions of specific features of this legislation. I have also captured the shifts which are embodied in three phases of the NSDS and the impact which this has on the incentives that it gives firms to implement enterprise related training skill acquisition and skill formation initiatives. This discussion furthermore examines the likely impact which the revisions and allocations to the skills development levy introduced under NSDS III are likely to have on the outcome of enterprise training in South Africa.

More importantly, evidence is presented in chapter 7 which alludes to a level of calculative practices which the contemporary South Africa skills development literature has largely

overlooked. Using insights gleaned from Alexandre Koyre, the renowned historian of science, whose work was the basis of Thomas Kuhn's formulation of paradigm shifts in scientific revolutions, particularly his argument that Galileo used imaginary thought experiments to establish propositions to advance science, I used this notion to argue that firms make use of out-of-pocket training expenditure to further their in-house training requirements. The proposition is that firms engaged in out-of-pocket training expenditure irrespective of their participation in a sectoral or national levy grant system which mandates that their training expenditure is drawn from a funding pool from which all other firms in the sector or economy make a contribution. Unfortunately, because the proposition is informed by a different theoretical outlook to that which informs current skills development practice, I encountered serious difficulties in proving my case. I had then to resort to constructing my own pilot survey to collect this new data which I was convinced exists but had not yet been tapped. Investigations which ask different questions in surveys are for sociologists, almost equivalent to the design of specific measuring instruments for physicists and other scientists (see Hirst, 1975: 184-185, n.30 who again emphasises this salient point in Koyre's study of Galileo and other scientists of the seventeenth century).

Due to the small size of my pilot sample (i.e. 43 firms), the evidence that I have assembled is not sufficiently categorical but it is extremely suggestive that out-of-pocket expenses is a category which intersects and infuses the overall training expenditure in firms. The proposition is given further momentum by evidence collected by the HSRC in its National Skill Surveys (NSS) for 2003 and 2007. Unfortunately the HSRC researchers associated with the survey and the interpretation of the evidence were not aware of this.

The proposition has wider implications. It implies that firms are gradually cultivating internal training expenditure and activity which falls outside the parameters of the mandated national levy grant system which has been operating in South Africa since 2000. If this is true, further tests are required to test the proposition on a wider scale than I have been able to do with my small pilot survey but also to test the proposition in a more systematic way than the HSRC NSS. If the evidence as I submit is correct, it means that the continuity between the early phases of enterprise training activity which was in place in South Africa (prior to the promulgation of the Apprenticeship Act but also beyond this period extending into the 1950s when employers surreptitiously ignored the prevailing legislation by imparting skills on black labour without awarding credentials of any sort), which can be characterised as a more severe

form of a liberal training dispensation, has in fact not been broken. This contradicts the notion of the vaunted skills revolutions which Membathisi Mdladlana, Minister of Labour from 1999 to 2008 often boasted about. Supposing this is true, then the thesis which Thelen (2004) advances of continuity over almost a century stretch in time is upheld. But further evidence is desperately needed to test this proposition.

8.4 The Contribution of the Thesis

It is my contention that this thesis makes a small but distinct contribution to the understanding of the coordination of enterprise skill formation in South Africa. It is a sociological and historical contribution which at the outset exploits the relative invisibility of the subject matter and gives it prominence and visibility. Any reader will now recognise that the arcane subject of the coordination of enterprise skill formation in South Africa occupies a space that can logically be demarcated as an arena for scrutiny and investigation. However, the space is not only confined to synchronic moments of our current existence. If the evidence is sought, a plethora of episodes, events and processes, which exhibit traces and footprints of previous attempts to secure the coordination of enterprise skill formation in South Africa – both successfully and unsuccessfully – can be seen to have taken place. A wide spectrum of practical and theoretical arguments, ideological postures, institutional vehicles and passionate individuals intent on making a difference, coming from diverse occupational backgrounds and occupying different locations in the power structure, have contributed to this dynamic picture. The thesis alerts readers to the existence of this evidence.

However, knowing that phenomena tied to enterprise skill formation exists today does not mean that those in the future who give attention to learning what we knew about these phenomena will have anything to say about what we know. This is simply because our knowledge of these phenomena may be a complete jumble and a lot of chattering noise. The thesis makes it possible to understand the historical process in the coordination of enterprise skill formation in South Africa. This is because it undertakes an analysis of an institutional space over a significant period stretching over a century, which research has neglected and which until now appeared invisible to our contemporary eyes. In attempting to understand the makeup of skill and broaden the understanding of how skill is enhanced through

enterprise coordination, this thesis is able to elaborate the unique institutional architecture which had to be constructed in the formation of a skills development system. This was important to ensure that the coordination of enterprise skill formation could at least show discernible results about its expansion.

The thesis gives insight into the coordination of enterprise skill formation which occurred in the period of apartheid reform. In particular, it captures the strategically important role which the Wiehahn Commission of Inquiry made towards systematising the coordination of enterprise skill formation in South Africa, mainly through the introduction of an understanding of policy coordination and a corresponding emphasis given towards the promotion of its institutional design. This was the understanding that was held about how to expand and promote the formation of skill at the enterprise level. This was the case for skill formation in general, notwithstanding the severe deflection and retardation by the overall apartheid policies during the period when the Nationalist Party regime governed the country.

The thesis documents the efforts to improve the coordination of enterprise skill formation by the policy advisors and state bureaucrats of the apartheid regime even as the overall regime and political system was veering towards the rocks and its ultimate destruction. I believe that the thesis provides a more nuanced understanding of the Wiehahn Commission of Inquiry which was perhaps a timely intervention into elevating policy and institutional coordination in South Africa. Ultimately, it had a massive bearing on the market economy and the trajectory of enterprise skill formation thereafter. The thesis shows that even when regimes change and new political orders are established it does not end the necessity for continuity in the coordination of enterprise skill formation.

The thesis gives an intricate and detailed insight into the process of building a new coordinated system that was intended to ensure the coordination of enterprise skill formation under a democratic post-apartheid political dispensation. The analysis traces the iterative –, both forward and backward – steps that were treaded by policy makers and policy thinkers from at least the early 1990s and which extended to the contemporary period. In the contemporary period, the most recent policy proposal from a government sponsored study-team was made as recently as 2013. This was when the *Higher Education and Training Ministerial Task Team into SETA Funding* released its report. This thesis attempted to interrogate the facts and traced its pattern from its source in ideas, reports, studies, statistics

or whatever pronouncements have entered the policy landscape and terrain of its investigation. The thesis is designed to make a small contribution to the understanding of the coordination of enterprise skill formation in South Africa.

8.5 Limitations and Possible Further Research

I am quite aware that sociologists who work from a more interpretative and subjective orientation will be critical of the manner in which I have treated my application of participant observation research. It may be construed as scanty and denuded especially since I have not captured the views of the actual and real participants in the process of trying to understand the construction, structure and operation of the levy grant system in South Africa. It appears that I have only trusted my own senses and reasoning and did not resort to capturing the senses of other key informants. I unreservedly acknowledge guilt. However, it is probably better to have pursued the research in the manner that I have, than to have undertaken the alternative route poorly. The alternative route to understanding coordination has been brilliantly depicted by Donald Chisholm (1989) in his book: *Coordination without Hierarchy*. Chisholm of course was intent on understanding informal structures in multi-organizational systems involving the San Francisco Bay public transit system, which contributed to coordinated outcomes. In executing his research project, Chisholm consciously set out to use in-depth interviews and observation as a participant attached to the system where he worked, in different capacities, but mainly as a researcher. I did not have the skill or inclination to be embedded in this manner for a significant duration in institutions and organisation of the South African skills formation system. I leave this mission to future students of the discipline of the sociology of education and training.

Despite my own methodological weakness in comparison to Donald Chisholm, I still believe that there are significant themes which this thesis highlights that can be taken further. One of course is the important issue of work and education as it is mediated through the enterprise. Such work ought to give more systematic attention to enterprises as coordinating mechanisms and delivery infrastructures to programmes which government mandates. Such mandated programmes often embody the implicit assumption that enterprises are institutions without any agency. Nor are they seen as arenas in which specific agency orientations are cultivated

(see Hirst, 1981). Informing our understanding of this crucial dimension is therefore thoroughly important and a worthwhile scholarly endeavour.

Linked to the above, is the notion of calculative practices (see Cutler, et.al. 1977 & 1978; Miller, 2006 & 2008). The discourses in South African academic sociology have simply not given the phenomenon of calculative practices much attention. Thus, the understanding of enterprises appears to be wholly around profit-maximising behaviour. It reinforces a narrow economic and accounting conception of enterprises. Unfortunately this prevents the understanding of wider conceptions and dynamics of enterprise behaviour in South Africa particularly in so far as it involves: corporate social responsibility, broader dimensions of the social wage (e.g. company pension schemes, share-ownership schemes etc.) and democratic practices which can possibly sustain such initiatives by giving it institutional longevity.

There is a space one can also use to test the notion of varieties of foreign skill formation systems that are associated with foreign multi-national and trans-national firms which operate in South Africa. Are these varieties of company skill formation practices different from the national South African variety? Are some varieties better or worse? There is merit in knowing this. More important, because of their more critical and conceptual meta-theoretical grounding in which they are embedded, it will be ideal if students of sociology can spearhead the process

8.6 Summary and Conclusion

This thesis shows that the process to the coordination in the formation of enterprise skill formation occurred in many different guises throughout the industrial history of modern South Africa. This includes both the Segregationist and Apartheid periods as well as the democratic period which followed after 1994.

Evidence for the more recent period drawn from National Skills Surveys is however marshalled which suggests that while there has been a gigantic increase in the extension of the new training dispensation to incorporate large numbers of individuals who would formerly have been excluded from the system, there is also a tendency for the liberal training

dispensation which the existing literature does not explicitly convey to continue defining the character of the skill formation system in South Africa.

This is shown in the uptake and high incidence of enterprise training expenditure which falls outside the compliance requirements of the skills levy as it currently exists. While this money is either a product of the profit, operating expenditure or reserves of firms and enterprises, I have referred to it as the 'out-of-pocket' training expenditure which firms incur. More importantly, because the initial evidence appears to suggest that out-of-pocket training expenditure is associated with a high incidence of training expenditure which would typically characterise firms and enterprises under a liberal training and skill formation dispensation, the enterprise survey data from the HSRC which I have correlated with data from a pilot survey that I conducted in 2015, is pointing to a trend in the evolution of a training system which mimics a liberal market training dispensation. This is associated with the perpetuation of short training courses which respond more directly to the needs of the enterprise.

The fact too that a liberal training dispensation which was nurtured as a modality by enterprises and firms even before the abolition of apartheid, suggests that there is a high resilience to the elimination of liberal market training systems within firms and enterprises. This applies notwithstanding their participation in training systems where mandated frameworks or solidarity frameworks are temporarily or intermittently elevated. Thus, enterprises and firms which structurally and inherently are committed to a framework of mutual adjustment, where price and market participation has greater influence in shaping the action and direction of its training and skill formation obligations, has a stronger propensity towards replicating this framework. A framework of mutual adjustment is in fact a bastion to a liberal training dispensation. This does not necessarily mean an association with a low skill training system as it has evolved under racially discriminatory conditions, in South Africa. A liberal dispensation is capable of overcoming such a system but yet will still be inclined towards embracing voluntarist and pluralist training practices. These of course can be discarded when appropriate.

It essentially means that the liberal training dispensation which the literature on the South African skill formation system is usually averse to discussing is actually more pervasive and entrenched. This is especially the case under an open and relatively democratic training system, which currently exists in South Africa. Here liberal attributes and characteristics of

training practice within firms and enterprises do not receive attention and rigorous scrutiny from outside. In contrast, a mandated training framework has the tendency to favour the provision of training that takes a particular format (e.g. formal skill training programmes in contrast to informal training programmes) and which leads to specific outcomes (e.g. a preference for formal qualifications). Liberal training through frameworks of mutual adjustment will favour forms and training outcomes which have more flexibility and cater for the immediate production and operational needs of the enterprise.

Firms that uphold liberal training practices by adhering to a framework of mutual adjustment, which entrenches a liberal training dispensation, can also exercise significant power to modify training systems which contain non-liberal features, which they do not approve. Such non-approved, non-liberal features can in fact be drawn from training systems that contain either a framework of solidarity, or a mandated framework. The current levy-grant system and the intermittent proposals which emanate from the Department of Higher Education and Training, to adjust and strengthen it, are examples of a mandated framework.

Thus, the ability of firms and enterprises to modify either solidarity or mandated frameworks, in favour of liberal or mutual adjustment frameworks, can be done either by withdrawing participation in the non-approved training system and concentrating the resources that would be used by participating in a system of training that more directly meet their own training needs. The incidence of out-of-pocket training expenditure appears to suggest this pattern.

Moreover, such firms and enterprises can participate surreptitiously to undermine a mandated framework which they do not approve. Firms in fact chose this route when they embarked on job fragmentation and job dilution in the 1950s in South Africa. There may in fact also be other ways in which firms can exercise mutually adjusted frameworks and practices which are more inclined to the institution of a liberal training dispensation.

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Appendices

Appendix 1: National Skills Development Strategy (I): April 2001 to March 2005

Objectives	Success Indicators
Objective 1 Developing a culture of high quality life-long learning	1.1: By March 2005, 70 percent of workers have at least a Level One qualification on the National Qualifications Framework.
	1.2: By March 2005, a minimum of 15 per cent of workers to have embarked on a structured learning programme, of whom at least 50 per cent have completed their programme satisfactorily.
	1.3: By March 2005, an average of 20 enterprises per sector (to include large, medium and small firms), and at least five national government departments, to be committed to, or have achieved, an agreed national standard for enterprise-based, people development.
Objective 2 Fostering skills development in the formal economy for productivity and employment growth	2.1: By March 2005, 75 per cent of enterprises with more than 150 workers are receiving skills development grants and the contributions towards productivity and employer and employee benefits are measured.
	2.2: By March 2005, at least 40 per cent of enterprises employing between 50 and 150 workers are receiving skills development grants, and the contributions towards productivity and employer and employee benefits are measured.
	2.3: By March 2005, learnerships are available to workers in every sector (Precise targets will be agreed with each Sector Education and Training Authority).
	2.4: By March 2005, all government departments assess and report on budgeted expenditure for skills development relevant to Public Service, Sector and Departmental priorities.
Objective 3 Stimulating and supporting skills development in small businesses	3.1: By March 2005, at least 20 per cent of new and existing registered small businesses to be supported in skills development initiatives and the impact of such support to be measured.
Objective 4 Promoting skills development for employability and sustainable livelihoods	4.1: By March 2003, 100 per cent of the National Skills Fund apportionment to social development is spent on viable

through social development initiatives	development projects.
	4.2: By March 2005, the impact of the National Skills Fund is measured by project type and duration, including details of placement rates which shall be at least 70 per cent.
Objective 5 Assisting new entrants into employment	5.1: By March 2005, a minimum of 80,000 people under the age of 30 have entered learnerships
	5.2: By March 2005, a minimum of 50 per cent of those who have completed learnerships are within six months of completion, employed (e.g. have a job or are self-employed); in full-time study or further training or are in a social development programme.

Appendix 2: National Skills Development Strategy (II): 1 April 2005 to 31 March 2010

Objectives	Success Indicators	Levers
Objective 1 Prioritising and communicating critical skills for sustainable growth, development and equity.	Success Indicator 1.1 Skills development supports national and sectoral growth, development and equity priorities.	Lever 1.1 <ul style="list-style-type: none"> • Sector Education and Training Authorities (SETAs) use their discretionary funds to identify critical skills in the sector using guidelines prepared by the Department of Labour and the National Skills Authority (NSA). • Critical skills needed, at entry, intermediate and advanced levels, are aligned and agreed with growth, development and equity strategy drivers and skills development bodies at national level within agreed timeframes.
	Success Indicator 1.2 Information on critical skills is widely available to learners. Impact of information dissemination researched, measured and communicated in terms of rising entry, completion and placement of learners.	Lever 1.2 <ul style="list-style-type: none"> • Department of Labour consolidates SETA inputs and national/generic priorities and prepares a national guide on occupational/employment trends, periodically updated as agreed. • Relevant stakeholders ensure that information is utilised and report back to Department of Labour. • The National Skills Fund's (NSF) Critical Skills Support Funding Window will fund the guide and the training of career guidance counsellors in the use of this information. • SETAs will use Discretionary Funds to fund the development of guides and the training of sector specialists or (SDFs) in

		the use of this information for their sectors.
Objective 2 Promoting and accelerating quality training for all in the workplace	Success Indicator 2.1 By March 2010 at least 80% of large firms' and at least 60% of medium firms' employment equity targets are supported by skills development. Impact on overall profile assessed.	Lever 2.1 <ul style="list-style-type: none"> • All Workplace Skills Plans (WSPs) to be submitted no later than 30 September for 2005 and thereafter 30 June each year. Newly registered skills levy-payers submit WSPs within 6-months from establishment. • WSP to be judged against three criteria in 2005: (1) Timeframe (submitted in time) and (2) WSP meets EE + BBBEE and charter compliance criteria. (3) Stakeholder signoff. • From 2006 onwards the WSP will be judged by an additional criterion, i.e. a report on the performance against the previous year's WSP. • If the WSP successfully meets set criteria then full 50% grant paid in quarterly tranches. • Firms failing to meet the set criteria will automatically forfeit the WSP grant for the given financial year. Forfeited grants will be transferred directly into SETA discretionary funds.
	Success Indicator 2.2 By March 2010 skills development in at least 40% of small levy paying firms supported and the impact of the support measured.	Lever 2.2 <ul style="list-style-type: none"> • The SETA determines the best form of intervention and grant, such as WSP grants or the provision of free courses. 40% of total population of small firms in sector to be reached by such initiatives is the target. SETAs to spend at least 80% of the total levy income from small firms on the achievement of this indicator.

	Success Indicator 2.3 By March 2010 at least 80% of government departments spend at least 1% of personnel budget on training and impact of training on service delivery measured and reported.	Lever 2.3 <ul style="list-style-type: none"> Government budgetary process used to ensure that national and provincial departments spend at least 1% of personnel budget on training.
	Success Indicator 2.4 By March 2010, at least 500 enterprises achieve a national standard of good practice in skills development approved by the Minister of Labour.	Lever 2.4 <ul style="list-style-type: none"> Firms achieving a national standard of good practice in skills development approved by the Minister will automatically get 50% of levy paid and for period standard is maintained. SETAs will secure agreement on information required from each firm based on regulation.
	Success Indicator 2.5 Annually increasing number of small BEE firms and BEE co-operatives supported by skills development. Progress measured through an annual survey of BEE firms and BEE co-operatives within the sector from the second year onwards. Impact of support measured.	Lever 2.5 <ul style="list-style-type: none"> SETA discretionary BEE grants.
	Success Indicator 2.6 From April 2005 to March 2010 there is an annually increasing number of people who benefit from incentivised training for employment or re-employment in new investments and expansion initiatives. Training equity targets achieved. Of number trained, 100% to be South African citizens.	Lever 2.6 <ul style="list-style-type: none"> NSF – Industry Support Programme grants. The Department of Labour must provide an annual report on progress made in respect of employment or re-employment generated, linked to new investment initiatives and expansions.
	Success Indicator 2.7 By March 2010 at least 700 000 workers have achieved at least ABET level 4.	Lever 2.7 SETAs use discretionary funds and may with the agreement of their Boards include the provision of ABET as a criteria for the release of WSP grants. Total sum of all SETA targets to be at least 700 000 workers.
	Success Indicator 2.8	Success Lever 2.8

	By March 2010, at least 125 000 workers assisted to enter and at least 50% successfully complete programmes, including learnerships and apprenticeships, leading to basic entry, intermediate and high level scarce skills. Impact of assistance measured.	SETA discretionary grants to include 18(1) grants for learnerships, bursary grants, internship grants and study support to learners acquiring basic entry, intermediate and high level scarce skills identified as scarce in their sectors.
Objective 3 Promoting employability and sustainable livelihoods through skills development.	Success Indicator 3.1 By March 2010, at least 450 000 unemployed people are trained. This training should incrementally be quality assured and by March 2010 no less than 25% of the people trained undergo accredited training. Of those trained at least 70% should be placed in employment, self-employment or social development programmes including (EPWP), or should be engaged in further studies. Placement categories each to be defined, measured, reported and sustainability assessed.	Lever 3.1 <ul style="list-style-type: none"> • NSF Social Development Initiatives Funding Window including EPWP grants.
	Success Indicator 3.2 By March 2010, at least 2000 non-levy paying enterprises, Non-governmental Organisations (NGOs), Community Based Organisations (CBOs), and community-based co-operatives supported by skills development. Impact of support on sustainability measured with targeted 75% success rate.	Lever 3.2 <ul style="list-style-type: none"> • 20% SETA discretionary funds and 80% NSF Informal Sector Support Funding Window.
	Success Indicator 3.3 By March 2010, at least 100 000 unemployed people have participated in ABET level programmes of which at least 70% have achieved ABET level 4.	Lever 3.3 <ul style="list-style-type: none"> • NSF ABET funding window to top up Department of Education (DoE) funding of Adult Learning Centres and funding to other public providers, as well as private and donor funding to other ABET initiatives.
Objective 4 Assisting designated groups, including new	Success Indicator 4.1 By March 2010 at least 125 000 unemployed people assisted to enter and at least 50%	Lever 4.1 <ul style="list-style-type: none"> • SETA discretionary grants to include 18(2) grants for learnerships, bursary grants,

entrants to participate in accredited work, integrated learning and work-based programmes to acquire critical skills to enter the labour market and self-employment.	successfully complete programmes, including learnerships and apprenticeships, leading to basic entry, intermediate and high level scarce skills. Impact of assistance measured.	internship grants and study support to learners acquiring basic entry, intermediate and high level scarce skills identified as scarce in their sectors. The NSF Critical Skills Support Funding Window provides top-up funding.
	Success Indicator 4.2 100% of learners in critical skills programmes covered by sector agreements from Further Education and Training (FET) and Higher Education and Training (HET) institutions assisted to gain work experience locally or abroad, of whom at least 70% find placement in employment or self-employment.	Lever 4.2 <ul style="list-style-type: none"> • SETA provides Work Experience Grants, as per agreement, to levy paying and non-levy paying employers in their sector that will provide work experience opportunities to students/graduates in sector-relevant programmes.
	Success Indicator 4.3 By March 2010, at least 10 000 young people trained and mentored to form sustainable new ventures and at least 70% of new ventures in operation 12 months after completion of programme.	Lever 4.3 <ul style="list-style-type: none"> • SETA Discretionary New Venture Creation grants plus NSF Informal Sector Support Funding Window top-up.
Objective 5 Improving the quality and relevance of provision.	Success Indicator 5.1 By March each SETA recognises and supports at least five Institutes of Sectoral or Occupational Excellence (ISOE) within public or private institutions and through Public Private Partnerships (PPPs) where appropriate, spread as widely as possible geographically for the development of people to attain critical occupational skills, whose excellence is measured in the number of learners successfully placed in the sector and employer satisfaction rating of their training.	Lever 5.1 <ul style="list-style-type: none"> • SETA Institute of Sectoral or Occupational Excellence Grant. This Grant to cover any or all of the following – and may be used to upgrade a facility in order that it can achieve the status of excellent: <ul style="list-style-type: none"> - Infrastructural Development - Educator/Trainer up-skilling - Curriculum and materials development - Learner support initiatives - Upgrading of satellite institutions (e.g. emerging providers in partnership with excellence institution) - Other – by mutual agreement
	Success Indicator 5.2	Lever 5.2

	By March 2010, each province has at least two provider institutions accredited to manage the delivery of the new venture creation qualification. 70% of new ventures still operating after 12 months will be used as a measure of the institutions' success.	<ul style="list-style-type: none"> • SETA discretionary grants plus National Skills Fund New Venture Creation Delivery Grant from the Informal Sector Support Funding Window.
	Success Indicator 5.3 By March 2010 there are measurable improvements in the quality of the services delivered by skills development institutions and those institutions responsible for the implementation of the National Qualifications Framework (NQF) in support of the NSDS	Lever 5.3 <ul style="list-style-type: none"> • SETA discretionary grants and specific NSF grants from the Provisioning Support Funding Window approved after advice by the NSA
	Success Indicator 5.4 By March 2010, there is an NSA constituency based assessment of an improvement in stakeholder capacity and commitment to the National Skills Development Strategy	Lever 5.4 <ul style="list-style-type: none"> • SETA discretionary funds and NSF Constituency Capacity Building and Advocacy Funding Window